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ORIGINAL ARTICLES.

CEREBRO-SPINAL ARCHITECTURE AS A FACTOR IN THE DIAGNOSIS OF NERVOUS DISEASES.

JOHN PUNTON, M. D.,* Kansas City, Mo.

By virtue of his mysterious and complex nature man has attracted the attention of the brightest intellects of every department of learning from time immemorial, and this attraction is even greater to-day than ever before.

To the searcher after truth he has ever proven himself an enigma. Considered from whatever standpoint, man has furnished more riddles and problems to the square inch than any other creature we know anything about; certainly no other object has been the subject of more severe and critical analysis than he, yet to-day we are all willing to admit the fact that there is still much concerning man that is still unknown to us.

While this may all be true, nevertheless it is a very gratifying fact for us to know that each and every century has furnished a greater or less number of investigators in the various departments of medicine, whose combined labors have solved many of the more difficult problems concerning his physical nature, and rendered possible the study of man on a scientific basis.

In an impartial investigation, therefore, sound method requires that we take into consideration all the phenomena presented, each in its completeness and natural relations, and an estimate of their full value given in accordance with their relative weight and bearing on the problems at issue. By the application of such methods in the study and order of nature, we soon discover the elements of a plan or system which shows progress in the unfolding of its parts from the lower and more simple forms of life to the higher and more complex. Each department of nature is thus seen to become higher and higher through the addition to itself of something in organization and endowment which the next below it does not seem to manifest or possess, but which have definitely been demonstrated to reach the very height of its power and perfection in the human brain convolutions.

In no other department of medicine is this law of evolution more beautifully illustrated or carefully observed than that which has been found to exist in the development of the central nervous system.

The very fineness of architecture and delicacy of structure has rendered its study beyond human skill until quite a recent period, hence the true nature of its anatomy and physiology all along the ages has been very imperfectly understood. The force and gravity of this lack of knowledge is very apparent when we remember that one of the fundamental principles of medicine declares that to understand pathological we must first possess a thorough knowledge of physiological processes.

*Professor of Nervous and Mental Diseases, University Medical College, Kansas City, Missouri; Special Lecturer Western Dental College; Neurologist to All Saints Hospital, etc.

The history of the progress of medicine also shows that just in proportion to our knowledge of the anatomy and physiology of any given part, does our knowledge of the symptomatology of its disease advance. The great aim, therefore, of scientific investigation, as Dr. Starr says, is to associate symptoms with lesions, and this has been done to a remarkable degree of late, chiefly along the lines of anatomy and physiology, through the instrumentality of the microscope.

In tracing the general outline of the history of the progress of medical science, it seems to me that it naturally divides itself into two great epochs, the first dating as far back as the days of Vesalius, the worthy founder of anatomical science in the year 1514, A. D., and the second from the introduction of the microscope into medicine by Leuwenhœck, until the present time.

These two great epochs stand out in special salience and present a marked contrast in the steepness of the rise of knowledge they present when duly compared.

In addition to this, they also represent the two great departments of study which have furnished all that is known concerning man's physical nature. These may be termed: I. *ma*croscopical; II. *mi*croscopical study. In these are included all the varied lines of scientific research; and all the various discoveries, from whatever source, belong to one or the other of these periods.

In this connection it must be remembered that the student of medicine has necessarily been forced to depend upon the different means and methods placed at his disposal by the arts and sciences of his own epoch, hence the smallest technical discovery frequently became of inestimable value. Considering the crude and limited means and methods of investigation belonging to the first epoch, the labors of such men as Vesalius, Eustachius, Fallopius, Pachioni, Harvey, Willis, Vieussens, Meckel, Scarpa, and many others whose names are immortalized in anatomical nomenclature, cannot be over-estimated and their discoveries testify as to their greatness and earnestness of purpose. Nevertheless it is the *microscopical* epoch to which our greatest advance belongs, and it is this we are compelled to recognize as furnishing the most marvellous and brilliant results, as well as the most practical knowledge. It is to certain consequences therefore, concerning this microscopical period and notably those of the past few years, that I desire to call attention at this time, consequences that seem to me to be of the utmost importance to the general practitioner, as well as to the neurologist in their daily practice.

The marvellous extent of the changes wrought cannot be realized by all the members of our profession, and for obvious reasons. Those of you who studied medicine before the change took place have been unable to follow the new development of knowledge on account of the exigencies of general practice with its ever increasing demand on your time and energies, for the successive steps have followed each other with a rapidity almost bewildering. Then again the large number of practitioners who studied medicine more recently and during the time in which these changes were in actual progress, but were yet subject to doubt, necessarily learned fragments of the new but large quantities of the old doctrines concerning the genesis of nervous diseases, thus acquiring a mixture which to-day we know to be quite incompatible and consequently harmful.

Before our present perfected knowledge, the pathology of nervous diseases was usually inferred from analogy, but to-day we know that the analogy was false and the malady itself quite different from that which was then supposed to exist. The vast increase of our knowledge of the anatomy and physiology of the nervous system, which is so salient a feature of recent progress, and the application of this to disease, has been found to be most useful in the correction of such erroneous inference and the displacement of the work of fancy by ascertained positive fact.

By it also our nomenclature has been greatly enlarged, our classification of diseases wonderfully improved and modified and our means and methods of diagnosis thereby rendered more perfect and reliable.

The application of the perfected microscope to pathology immediately increased the range of so-called organic diseases. The term organic being used to designate those diseases in which the lesion is visible and, as visibility is only a relative term depending on the means of vision, it is easy to understand the great changes which have

been wrought in this department alone. For instance, prior to the discovery of Turck ("That a break in the conductivity of certain nerve fibres in the spinal cord always led to a degenerative process which spread upwards or downwards according to its seat") our knowledge of the pathology of spinal diseases was very imperfect, hence a correct diagnosis was impossible; but the application of this fact and its further elaboration furnished us with that most valuable pathological classification of diseases of the spinal cord into systemic and non-systemic diseases.

In view of all the remarkable advances which have been made of late in this department of medicine, is it any wonder that those only familiar with the old, should be lost in the mazes of the new? All important, therefore, is the knowledge which recent investigation affords concerning cerebro-spinal architecture and its use as a factor in the diagnosis of nervous diseases.

The wonderful perfection which has been attained of late in elucidating the complex mechanism of the nervous system may be said to largely depend upon three methods of research, viz., I. The degenerative method discovered by Turck, in 1850; II. The atrophic method of Von Gudden, in 1870; III. The developmental method of Flechsig, in 1877.

It was the further elaboration of these that gave us the present perfected knowledge of cerebro-spinal architecture, and rendered it most valuable as an aid in diagnosis. In their utilization, the most remarkable results have been accomplished, and still in process of enlargement.

It would be impossible for me to give in detail the structure and functions of all the various parts which constitute cerebro-spinal architecture, so that at best I can give but a hurried glance of some of the more important, yet I will endeavor to review briefly some of the principal facts as demonstrated by the more modern researches in America, England, France and Germany, and those which are now generally conceded and accepted as proven.

The department of medicine that relates to neurology is based on physiological principles, and recognizes the nervous system, with its various appendages and correlating energies, to be the supreme controlling force in man. Its functions taken collectively, associate the different parts of the body in such a manner that a stimulus applied to one organ excites to action another. It is composed of a series of connected central organs called collectively: I. the cerebro-spinal centre, or axis; II. ganglia; III. nerves; IV. certain modifications of the peripheral terminations of nerves which form the organs of the external senses.

It is divided into two great systems, I. Cerebro-Spinal; II. Sympathetic.

The first includes the brain, spinal cord, cranial nerves, spinal nerves, and is in direct connection with the cerebral centers.

The sympathetic is not in direct connection with the cerebral centers, but is so indirectly, by means of numerous branches which go to and come from it. It essentially consists of a double chain of ganglia.

The spinal cord is a long rod or mass of nervous tissue, enclosed in a bony canal formed by the bones of the spine. It consists of white and gray nervous tissue, the white being most external and capable of division into various tracts or columns, which are connected centrally with the brain. It gives off at regular intervals the spinal nerves in successive series, which are distributed to the various muscles.

The white substance is made up of at least nine tracts of fibres which differ in function according to its situation. It is usually divided into three primary columns, viz: (*a*) anterior; (*b*) lateral, and (*c*) posterior. (*a*) The anterior is motor in function; (*b*) the lateral column is much more complicated and has a mixed function containing both motor and sensory fibres.

(*c*) The posterior columns of the cord present two well defined tracts known as the column of Goll and column of Burdach, and these are said to be essentially sensory in function. Now the study of the course and distribution of these different tracts and their special uses constitute one of the most difficult problems in neurology, for it is by these that impressions from without are conveyed to the brain and transformed into other impulses. One of them is said to convey the sensations of pain, another those of touch, a third varying degrees of temperature, a fourth that of muscular sense; while still others represent the so-called motor tract, which for the most part

crosses at the medulla, while certain fibres, known as the column of Turck, ascend to the brain on the same side.

The gray matter of the spinal cord is made up of several distinct groups of cells which are said to be the residence of special centers which govern different functions of the body, the principal ones being that of reflex action, trophic and nutritive powers, as well as the source of innervation of the sympathetic system.

As the gross anatomical features of the brain are already familiar to you, I shall merely refer to them incidentally, but speak more especially of these parts the knowledge of which, in my judgment, is more requisite in the diagnosis of nervous diseases.

The brain consists of a variety of nerve centers arranged in layers or masses, connected with each other as well as the spinal cord and other organs by means of various tracts of nerve fibres which differ in function and structure. The most external layer consists of gray matter and constitutes the cerebral cortex.

Now the cortex of the brain is the seat of all conscious mental action. It is therefore the receptacle of all impressions made upon the organs of sight, hearing, touch, taste and smell. Here and here only do such impressions become transformed into conscious appreciation of external objects. From it also proceed all the motor fibres distributed to the voluntary muscles, under the name of the motor tract, as well as the sensory fibres which gives rise to psychical perception of external impressions.

Now certain portions or areas of this cerebral cortex preside over different distinct functions or actions of the body; indeed it may truly be said that every part of the body is represented in it. As Dr. Ramsey well says: "By facts at our command to-day we know that one portion is limited to vital processes, hence its destruction causes instant death;" another part presides over the various movements of the body, hence paralysis of motion results from injuries to this area; a third enables us to appreciate the sense of touch, another of pain, another of temperature, and disturbances of these functions will be apparent when these regions are diseased. Another portion presides over the sense of sight, hence disturbances of vision, or even blindness, may follow injury or disease of this part. In the same manner hearing and smelling are governed, and when a combined action of all these parts are demanded, as in the exercise of reason, will, or self control, the knowledge gained by these means can be contrasted, and their specific functions correlated in such a manner as to meet the exigency of the case."

From this, then, we learn that the external surface of the brain can be mapped out into a series of definite areas or regions, and say positively that this or that one controls or presides over this or that particular function of the body. By a thorough knowledge of these special areas, the skilled physician can determine by the symptoms which their derangement produces, the exact situation, extent and nature of the lesion.

So positive, gentlemen, is the information thus afforded to-day, that surgical operations are now performed daily for their relief, whereas a few years ago such a proceeding was considered impossible.

I will now endeavor to demonstrate the various areas or regions referred to, together with their special functions. For convenience I have divided the brain into four parts, or lobes, viz.: I. Frontal; II. Parietal; III. Occipital; IV. Temporal. The names, as you will observe, correspond to the names of the bones of the skull which encase them. They are separated from each other by three important fissures, viz.: I. Sylvius; II. Rolando; III. Parieto-Occipito.

I.—FRONTAL LOBE.

The first frontal lobe represents four principal convolutions which are separated by fissures, the largest one being termed the precentral, and divides this region into two parts, an anterior and posterior.

That part which lies in front consists of three convolutions, first, second and third frontal; it is sometimes termed the prefrontal lobe. In these are supposed to reside the centers which control the higher mental faculties such as judgement, reason, will, self-control, etc. Any injury to this part is liable to cause a disturbance of these faculties. At the lower portion of the third frontal reside the centers which Broca long ago designated as the speech area, or the seat of language. Injury or destruction of this may cause an impairment of speech, or even complete Aphasia.

The posterior portion of the frontal lobe constitutes a part of the motor area, and is known as the ascending frontal.

II.—PARIETAL LOBE.

This lobe is also made up of four principal convolutions named, Ascending Parietal, Superior Parietal, Supra-Marginal, and Angular. These are separated from each other by small fissures, and divided into two portions by a larger fissure termed the fissure of Rolando. This is the important landmark for all surgical operations in and around the motor area.

That portion situated in front of the fissure, together with the ascending frontal and a portion of the superior parietal termed the Paracentral lobule, constitutes the whole of the motor area. In this resides all the centers which govern the voluntary movements of the body. For convenience it may be divided into three parts: An (*a*) upper, (*b*) middle, (*c*) lower. The first governs the movements of the legs; the middle, the arms; the lower, the lips and tongue. Any injury to these may cause corresponding paralysis to the parts supplied. The remaining portion of the parietal lobe not specially belonging to the motor area, and separated from it posteriorily by a large fissure termed the intra-parietal, represents the regions which are probably the seat of conscious perceptions of touch, pain and temperature, and consequently may be styled a sensory area.

III.—THE OCCIPITAL LOBE.

The occipital lobe is made up of three convolutions which preside over the sense of sight, and the recognition of familiar objects by the eyes depends entirely upon the integrity and activity of the cells of this portion of the brain. Any injury to this may cause disturbance of vision and destruction of the cuneus may produce blindness.

IV.—TEMPORAL LOBE.

Finally, the temporal lobe is the region or seat of the centers which enable us to consciously appreciate sounds, odors or taste, hence it represents the centers of the special senses of hearing, smelling and taste. Like the occipital, it is composed of three convolutions separated from each other by small fissures.

All these various centers are thus seen to have their residence in the cerebral cortex. This cortex forms a vault or dome arching the large mass of white substance beneath and known technically as the centrum ovale.

Proceeding in every direction from these centers are the nerve fibres which converge from all parts of the cortex to form the corona radiata and centrum ovale. Starr says that these fibres may be arranged in three sets, viz.: I. Association fibres which connect the cells of different areas in the same hemisphere.

II. Commisural fibres which connect homologous parts of the opposite hemispheres and therefore cross the median line.

III. The projection or peduncular fibres which connect the different areas of the cortex with other parts of the nervous system lying below it. They converge from all parts of the cortex and gathering together at the upper level of the basal ganglia either terminate in the optic thalamus or pass between the basal ganglia to other parts of the brain and spinal cord. The fibres terminating in the optic thalamus constitute the visual and auditory tracts, while the rest of the fibres pass on at once to the internal capsule where they form a series of different tracts with special functions. From before backwards they are as follows:

I. The speech tract, conveying speech impulses to the pons and medulla.

II. The face tract, conveying facial motor impulses to the pons where the nucleus of the seventh nerve resides.

III. The arm tract, destined to the arm center in the cord.

IV. The leg tract, transmitting leg impulses to the leg centers in the cord.

V. The fibres conveying impulses to the muscles of the trunk.

Hence, it appears that the centers for the legs, which are highest in the cortex, become lowest in the capsule, while the face fibres, which are lowest in the cortex, become highest in the capsule; but the arm fibres are situated between the two at the cortex as well as the capsule.

These various tracts of fibres constitute the motor tract whose course through the anterior two-thirds of the posterior portion of the internal capsule is probably familiar to all of you, and from this point passing to form the middle third of the crus cerebri or pes peduncle, thence to the pons where the facial fibres decussate to

opposite sides to end in their respective nuclei, while the balance of the fibres are continued by way of the pyramids of the medulla, where they for the most part decussate to form the crossed pyramidal tract of the cord while a few are continued down the cord, on the same side as far as the mid-dorsal region, under the name of the column of Turck. All of these fibres which are continued from the brain to the spinal cord terminate in the large cells found in the anterior cornua of the gray matter where they again take origin to be distributed to the voluntary muscles of the body. Besides the motor set of projection fibres there is still another set known as the sensory tract. It lies just posterior to the motor tract and passes inwards into the parietal convolutions to the capsule, where, in general terms, it may be said to take a similar course to that of the motor. It is made up of fibres which convey the sensations of touch, pain, temperature and muscular sense; hence any lesion in any part of its course causes corresponding disturbances of those functions.

Thus the fibres which constitute the internal capsule possess, as Dr. Ranney says, greater interest than many others, both from a physiological as well an anatomical standpoint.

Late researches have shown that it contains a successive series of tracts or bundles, the functions of some of which are definitely known while bthers are not yet well determined. Taken collectively they may be arranged as follows:

1. That part of the internal capsule designated as the caudo lenticular portion, which lies anterior to the knee, is composed of fibres whose functions are imperfectly understood. They seem, however, to pass chiefly to the cortex of the frontal lobes and thus they would appear to be associated with the higher mental faculties.

2 The functions of the majority of the tracts of fibres, however, found in the thalamus and lenticular portion of the internal capsule are definitely known and serve as valuable clinical guides to the localization of cerebral lesions which directly involve or create pressure upon them. They are as follows:

A. In the region of the knee are found the motor fibres of the face. These facial tract fibres decussate to opposite sides in the middle of the pons variolii terminating in their nuclei.

B. Posterior to this we have the pyramidal motor tract or the will tract of Spitzka, those destined for the arm centers in the cord lying anterior to those destined for the leg. These control the voluntary muscles or movements of the limbs.

C. Posterior to this we have the sensory tract which convey sensations of all kinds from the peripheral organs to the cells of the cerebral cortex where they can be appreciated by consciousness.

D. Next in order is the speech tract, whose fibres allow of communication between the speech area of the cortex and nuclei of origin of the facial, glossopharyngeal, pneumogastric, spinal accessory and hypoglossal cranial nerves.

This center is also connected by association fibres with the centers of hearing, viz: the first temporal convolution, and those of sight, viz.: the occipital convolutions. Thus the cortical center of coordinated speech movements is capable of receiving excitation from the center of hearing when replies to spoken language are demanded, and from the centers of sight when written or printed language calls for a verbal reply. It is also put in communication, as we have already seen, with the nerves which preside over the apparatus of speech.

E. The optic fibres pass through the extreme posterior part of the capsule. These are designed to join the optic nerves with the convolutions of the occipital lobes. This constitutes the visual tract.

F. Another tract in the capsule is the hypo-glossal tract. This is an independent tract of fibres which connects the cortical centers for the movements of the tongue with the nucleus of origin to the twelfth cranial nerve within the medulla. It therefore probably joins the lower third of the pre-central or ascending frontal convolution with this nerve. It is supposed to pass through the internal capsule near its knee, and anterior to the motor fibres which govern the limbs. Lesions of this tract would produce symptoms allied to those of Duchennes disease, viz.: Bulbar, or glosso-labio-pharyngeal paralysis.

G. The course of the fibres associated with the rest of the special senses, viz.: those of taste and smell, are not yet so well understood as in the case with the eye and ear. This latter, or auditory tract,

probably passes through the lower and posterior part of the internal capsule to its respective centers in the temporo-Sphenoidal lobe.

From the course of the various cerebral tracts, we learn that any lesion which lies in the centrum ovalle at any point posterior to the pre-central suclus of the frontal lobe must necessarily either effect the motor, sensory, visual or auditory tracts, or individual fibres of these, and the symptoms of their derangement will necessarily correspond to the parts affected. Bearing also in mind the following rule of lesions confined to the motor area that the nearer the lesion is to the cortex the more liable will only one center be affected; hence monoplegic paralysis usually results. While the nearer the lesion is to the capsule the more liable two or more tracts are to be affected; hence hemiplegic paralysis together with hemianæsthesia usually occurs.

The importance of this knowledge cannot be over estimated, as by this we are enabled to decide upon the possibility of relief by surgical interference, as well as to define the special nature and seat of the lesion. While it must be confessed that the study is very tedious and complicated, yet the conclusions to be reached are of the highest importance to the patient as well as physician.

As the various facts embodied in this paper are scattered at intervals throughout the wide domain of medical literature and therefore not easy of access to all, I have endeavored to collect and present them in as tangible a form as possible, trusting they may prove of service to any who may be called upon to treat the more obscure diseases of the brain and spinal cord. I might also add that in the preparation of this paper I have made free use of the opinions and statements of such authors as Spitzka, Ferrier, Hughlings Jackson, Horsley, Gowers, Charcot, Nothnagle, Edinger, Ranney, Luys, Flechsig, Gray, Sachs, Starr, and Dana, as well as many others, besides the cullings from the numerous periodicals devoted exclusively to neurological science.

COMMUNICATIONS.

BACTERIOLOGY AND COUNTRY HYGIENE.*

K. S. HOWLETT, M.D., Bigbyville, Tenn.

In these, the closing years of the Nineteenth Century, scientific research is being carried on with a zeal and an enthusiasm unknown to any other age. Men are becoming more unselfish and self-sacrificing n their pursuit of knowledge, are giving their time and their fortunes and devoting their very lives to the attainment thereof. In every science, the devotees are carrying their investigations deeper and deeper, and the wonderful scientific mysteries unfolding in response to their endeavors only seem to whet the appetite and increase the unsatiable desire for further knowledge. As a result of this untiring work, wonderful progress is being made in every science and, the best of it all is, this knowledge obtained is being used for the elevation, the advancement and the comfort of the human race.

In this movement, the science of medicine does not lag behind. In no other field is there greater display of earnestness, zeal, pluck and determination and in none other are there more brilliant and at the same time more practically beneficial results. In no other profession, without any exception, has there been manifested more modesty, unselfishness and self-sacrifice, more of that greatest of all virtues, charity, or love of fellowman, and in none other has there been more ardent, disinterested work done or more heroism shown in attempting to relieve suffering humanity and no other more deserves the admiration and the gratitude of the whole world.

Every true physician must feel an added heart beat of pride in his profession when he contemplates these things.

That branch of medical investigation which has been given the most attention, which has already made the greatest

*Presidential Address, delivered before the Maury County, Tenn., Medical Society.

change in our therapeutics and which bids fair to well-nigh revolutionize our ideas about many diseases and their treatment, is the study of bacteriology. A few years ago it was given only a passing thought and spoken of (if spoken of at all) only indifferently or contemptuously; but to-day these little parasites are taking quite a prominent position in the medical world. The most distinguished investigators are fairly living among them, cultivating them, studying their nature, their appearance, their habits, their products and the effect of themselves and their products when introduced into the system; the most progressive medical schools are adding special laboratories for the study of them, medical lectures and essays are replete with them and the medical journals are full of them. Now, the outside world is catching on and the newspapers are giving space to them and even the patent medicine advertiser has a knowledge of their existence and is trying to turn them to a profit by promises of a complete, sure and universal destruction to them.

These innumerable little pests float in the air we breathe, in the water we drink, live in the food we eat, hide themselves in the carpets, on the walls, and in every crack, nook and corner of the houses in which we live, and so great is their tenacity to life that they live on for months and years, resisting heat and cold and almost every effort we make for their destruction, even daring sometimes to take up their abode with impunity in some of our boasted disinfectants and multiply and develop there.

They are continually and persistently seeking an entrance into the body that they may find a congenial soil and set up their destructive process there. Having once forced their unwelcome entrance into the body and found a suitable place upon which to plant their batteries and establish their head-quarters, they put their chemical laboratory to work and manufacture poisoned ammunition with which to carry on effectively their fierce assault upon every vital fortress. They send these destructive products into the brain, the heart, the digestive organs and each shows the disturbing effects of their presence and each trembles, weakens and well-nigh succumbs to the unwonted invasion.

But nature does not tamely submit to this intrusion upon her domain and the bacteria do not find an unmolested march or an unresisting or easily conquered inhabitant. For within the body are found living cells, or phagocytes, which stand ever on guard, keeping up a close and ceaseless vigil, ever ready and waiting to rush to the rescue and repel the advance of any destructive army. Hence, we have an uncompromising warfare between cells and parasites, between native inhabitants and foreign invaders. As the bacteria exert their destructive influence chiefly through the agency of chemical poisons, so likewise the living cells use their counteracting poisons as a means to destroy them and render inert their products. This contest is one that knows no truce. Each side carries the black flag and it is a war of extermination and so fierce do the combatants become that the conquerors even devour the dead bodies of their adversaries.

While this savage interchange of hostilities is going on and this furious battle raging, all is noise, strife and confusion within the system. But when the victory (as, fortunately, it usually does), perches upon the banner of the living cell, and the smoke of battle has cleared away, we find that every evidence of the ferocious contest has been removed and all is peace, quiet, order and regularity. Once more, not only this, but the industrious little cells often go further and so fortify the system that forever thereafter they can easily protect themselves from the future assaults of these same bacteria and give the body an immunity from them.

So nobly, so brilliantly and effectively do these little cells do their part, and so many valuable lessons have they taught the close and wondering observer, that the admiring physician looking on feels like bowing in humble respect before them and deems it an honor to be an ally to such courageous heroes and a coveted privilege to be a disciple of such judicious teachers.

This so-called doctrine of Phagocytosis is an interesting and fascinating one, and while many will call it only a beautiful theory, it has already added something to our therapeutic resources and promises much more for the future.

But while the study of bacteriology has added much to our knowledge of the etiology and pathology of diseases and has aided us materially in

the rational treatment thereof, perhaps the greatest benefit we have derived from it and the greatest advancement that has been made is in that art which is the perfection of all medical skill, viz.: the prevention of disease. Knowing these little germs to be the cause of so many of the ills which flesh is heir to, there is nothing more natural than that the greatest effort should be made to prevent their entrance into the body.

Now, the first thing we notice in studying bacteria, is that dirt and filth are the most congenial soil for their propagation and development; hence that most important of all hygienic laws, always appreciated, but now that we understand the habits of these parasites, more so than ever before, that cleanliness is absolutely essential to health and that filth is the most prolific cause of disease. The cities and larger towns have long since learned, by sad experience, the fatal results of neglecting this, as well as other hygienic laws, and have conformed their laws and customs accordingly. They locate and build their houses with due regard to drainage, ventilation, sewerage, etc., so that they can have pure, fresh air to breathe; they arrange their water-works so that they can have good, clean water to drink; have boards of inspectors to see that they have wholesome food to eat, and most important of all, they give their boards of health power to compel every man to clean up his premises, disinfect privy vaults and cess-pools, and to see that nothing is allowed to be carried on or to remain on one's premises which would be a nuisance or source of danger to the health of his neighbors. The result of this is that we have cleaner cities, with better health reports and a constantly decreasing rate of mortality and an almost complete suppression of the former fatal and dreaded epidemics. Where so many people are crowded together, the necessity for such precautions forces itself upon the attention of people and in pure self-defense they *must* not neglect them.

But, while this improvement has been going on in the cities, what has been done in the smaller towns and country? Nature is exceedingly kind to the country inhabitants. She furnishes them with fresher air and purer water, if not polluted by man himself, than the cities can obtain with all their improved appliances, and the people have become so accustomed to think of the country as the place for city people to go for health, and they have neglected the best known laws of hygiene for so long, with comparatively few bad results, that they never think of such things until sickness and death comes and they begin to look around for a cause thereof. I wish to direct your attention for a very few moments to some of the very noticeable conditions frequently found in reference to country hygiene. First, we will notice the water supply. Sometimes we find several members of a family stricken with a fever, generally typhoid, at the same time, and, in looking for a cause, we will investigate the water supply of such a family. We will generally find an old well, which probably has not been cleaned out for years, located in the lowest part of the premises, so that all the filth about the yard and (perhaps) lot must necessarily drain right into it. Or, you will find a spring down in the stock lot, with horses, cattle, hogs and geese running all around it and the spring branch choked up with grass or leaves. I recall one of this kind. In the family of the owner of the place I had five cases of typhoid fever following each other in quick succession, and in the house of a tenant, who used water out of it, I had three or four cases, while among the pupils of a school, who got their water at the same place, I had several cases of both typhoid and malarial fevers. Of course, my attention was immediately directed to this spring. I found it located about thirty yards from the house, at the foot of a little hill, upon which was situated the residence with all the out-houses (a condition often found), the branch from it choked up with half-decaying weeds and grass, so that the stream could only make its way sluggishly and laboriously away. And, just above this spring, I found a large hog-wallow, separated from the spring by a mound apparently thrown up for the purpose, about twenty feet through, and a muddy, slimmy stream from this flowed right down by the fountain of the spring and emptied itself into the branch just a few feet below. It was not only not surprising that they had typhoid and malarial fevers as results, but a wonder that they did not have the whole catalogue of diseases besides. This is probably an extreme case, but if we will ex-

amine the wells and springs from which the majority of even the well-to-do people get water, we will find that that water must certainly be far from being pure and could be wonderfully improved by just a little ditching, a little more attention and by showing a little better judgment in locating the buildings, stock-lots, etc., with reference to the source of water supply. I wish to put especial stress upon this point, for I believe it is most sadly neglected in the country and a most prolific source of sickness, suffering and even death.

Now, when we come to notice the houses in which the people live, according to my observation, very little fault can be found with the dwellings of the well-to-do which have been built lately. They usually select healthy locations for them, and the rooms are generally large and well ventilated. One error that ought to be condemned is that not uncommon one of having cellars under the houses, which are used for storing potatoes or other vegetables in, or for milk houses, and many of which get very damp, having water standing in them at times, and which it is not possible to properly clean out. Going to the rooms of the upper story, another improvement that might be suggested is that they be given more height, as they are generally used for sleeping rooms. We ought also to always protest against the common practice of the whole family sleeping in one room. When we come to look at the outhouses, we frequently find the stables and privy in uncomfortable proximity to the dwelling house, and one very grievous error is the almost universal neglect of using disinfectants of any kind about the premises. Where people live some distance apart, the necessity for this is not felt, but disinfectants are cheap and many cases of sickness might be prevented by their systematic use.

But when we visit the houses of the great mass of tenants upon the farms in our country, we find everything to condemn. They are frequently located close to a branch or creek, in the lowest, wettest place about the whole farm. Almost all of them are built of logs, generally old rotten logs which have already served out their term of usefulness in other houses. These furnish an inviting lodging place for every species of germ. The floors of these cabins are laid right on, or very close to, the ground; the sleepers, if there are any, have usually decayed from the constant damp, and the floor is sunken and uneven. The celling is so low that one can scarcely stand erect in the room. The doorway is low and narrow, and usually (but not always) we will find a little square hole left in the wall somewhere, which serves to let in light and air in the stead of a window.

But it is not necessary for me to continue the description of these houses, for they are so common all over this country, being found upon the farms of our most prosperous farmers, that every physician is perfectly familiar with them and will agree with me that the picture is not overdrawn. In this so-called house, consisting of one room, with perhaps a covered pen behind it for cooking purposes, must live a whole family, oftentimes doing their cooking, eating and sleeping all in the same room, and if any are sick they must remain in the room where this is carried on. As the great majority of these tenants are negroes, who are certainly not noted for neatness, you will readily see what the condition of affairs is and imagine what the results will be. Such seeds sown will inevitably bring forth a harvest of disease and death. Now by sickness the owner of the farm frequently loses the labor of his hired man or tenant for days and weeks when such service can illy be spared, or by death loses him altogether, and it seems to me that not only for humanity's sake, but as a pure matter of business and as a paying investment, they should set fire to; or tear down, these old death traps and build for their tenants larger, more healthy and more comfortable houses.

There are many other means by which the simplest laws of health are most flagrantly violated throughout the country that might be mentioned with interest, especially in reference to school houses and other public buildings, but they are patent to every observing physician and every one duly appreciates the evil thereof.

The question that presents itself to us is, what can be done to mitigate such evils? The inhabitants of this free country are a liberty-loving people, and every man feels that even if he has a condition of affairs upon his premises which brings sickness to his family or tenants, but does not harm his neighbor, it is nobody's business but his; he quickly resents any in-

terference in the matter, and it is useless to try to make and enforce laws to compel him to change these things. But the greater number of our farmers are intelligent, reasonable people, and they would very willingly keep their premises in better hygienic condition if their attention was only directed to the evil of neglecting to do so. But how little attention has been paid to this, even by the physician himself. We see statistical reports from the cities, showing the death-rate and the number of infectious diseases, and we see the causes of these diseases discussed often and persistently in the medical and daily papers, and we see articles from the health officer, making a demand upon the people to attend to the removal of all conditions favorable to the dissemination of disease. But country people seldom ever think of these things at all in connection with their homes. Now wouldn't it be an interesting thing to country physicians, if we could get at like statistics concerning the country neighborhoods? And could'nt we, by a little work, make the report of the county health officers less vague and more valuable? Suppose we appoint a statistician, and let each physician report to him the number of deaths, of infectious diseases, calling especial attention to those that are due to improper hygienic surroundings. Let the statistician tabulate and arrange these reports, publish them with appropriate remarks each month, and call the attention of the people to the preventable causes of disease, and urge them to clean up their premises, look after their springs, disinfect privies, etc., just as city health officers do from time to time. It would certainly be a wonderful improvement upon the present manner in which indefinite reports come to the health officer, from which he makes his report, and would add much to the accuracy, interest and true value of such report, both to the physician and the people.

DISPUTED POINTS IN HYSTERECTOMY.*

JOSEPH PRICE, A.M., M.D., PHILADELPHIA, PA.

The mooted questions in surgery grow less as our experiences enlarge and ripen. There are in our science and art some certainties, some points upon which there is unanimity of enlightened opinion. There are, however, also, as in all other sciences and arts, as in all other lines of human enterprise and endeavor, disputed points; disputed, we must take it, from the standpoint of conscientious opinion. These differences are the chief factors, the motor forces of our advances. Without them, inertia would take the place of our activities. The fact of our advances is not disputed; the lines along which they have been made, direct the way of interesting and instructive study. We have a profound interest in the names and work of those toiling pioneers who have blazed the trees for our guidance to lessen the difficulties of our following. What they have done for womankind will always lie beyond the power of biographical pen to narrate. We would find it difficult to distribute our debt of obligation when we come to consider the great labors, the brilliant work of McDowell, Kimball, and the Atlees, of Péan, Keith, Koeberle, Hegar, Billroth, Kaltenbach, Kleeberg, Schroeder, Lawson Tait, Bantock, Thornton, and others. We find stimulus in such names and such records for worthy following. They have given us the sublime lessons of their experience. What masters they are—all of them! They represent the genius of science, of practical skill; they have enlarged our resources; they have helped us to make many lives worth living. Some of these men are living to-day, are yet giants at the wheels, yet students in the solution of great surgical problems.

In considering the definitions of hysterectomy we must bear in mind nomenclature. Schroeder's term, myomotomy, is not synonymous with hysterectomy; is not hysterectomy; it more appropriately applies to simple extirpation of the tumor. Hysterectomy is the removal (Kimball's operation) of the whole body, or any section of the uterus, with

* Read before the Philadelphia County Medical Society, April 12th, 1893.

tumors inseparable therefrom. Such high authority as Thornton places within its field all cases in which the uterine cavity is laid open and more or less of its wall removed along with the fibroid; whether one or both ovaries are also removed is a matter of no consequence. Sometimes it is more convenient to remove one or both, applying the term vaginal hysterectomy to cases in which fibroids, the uterus, and the uterine appendages are all removed.

The progress made in perfecting the operation has taken some disputed points out of the field. Experience has given something of definiteness to our views; still there are two camps. The disputed points involve methods, rather than questions, of the justifiability or safety of the operation; on these points there is unanimity of sentiment among experienced surgeons. There may be yet some division of opinion as to what cases should be operated on, and what cases should be let alone. The operation was long regarded as one of the most fatal in surgery. The low rate to which the mortality following the operation has been reduced, where the cases fall into experienced and skilful hands, has given it an abiding and important place among the life-saving procedures. In the matter of methods, men are likely to credit those methods with being best which, by their own tests and in their own individual and professional experience, have given the best results. One or more failures with any one particular method of procedure drives some men to try others. With their first success they christen the baby "My method," "My modification," "My improvement," or "My invention," and the entire profession is exceedingly glad that a new genius has been born into the profession—that there is a new light in Israel.

The history of the treatment of the pedicle in ovariotomy has influenced all of the older ovariotomists to try the same methods and materials to perfect an intra-peritoneal method in hysterectomy. The early efforts of Schroeder were quite successful. Some of the younger operators have improved the statistics by clean extirpation, but we yet remain in two camps as to the management of the pedicle.

Operators clinging to the nœud and the extra-peritoneal method are making the best showing, operating right along with a very low mortality. It cannot be inferred from the success of the intra-peritoneal method in ovariotomy that improved or equally successful results will be attainable by the intra-peritoneal method in supra-vaginal hysterectomy. The results in many large and ripe experiences establish the fallacy of this idea; such inference is in blind disregard of essentially different conditions. Ligatures cannot be safely used in uterine, fibroid, or myomatous tissue. Silk, as applied to the pedicle in cystomas, is harmless and safe.

I would say here that the earlier errors in diagnosis, mistaking cystiform degeneration, fibroids, or œdematous myomas, for ovarian cystoma were common, and the cases were either abandoned or incomplete operations done with disastrous results. Some of the most skilful operators did not escape making these errors.

The treatment of the pedicle has been repeatedly and exhaustively discussed. Results have dampened the enthusiasm of the advocates of the intra-peritoneal method.

It is necessary in the removal of about all fibroids to make a pedicle. Its manufacture in extra-peritoneal hysterectomy is the one important feature of the operation. It should be made small. Suturing securely against hemorrhage is also the important feature in the intra-peritoneal, and the avoidance of hemorrhage and the ureters are the important features in the extirpation method.

Shock is minimized in the extra-peritoneal method, the operation being shorter, exposure and manipulation less, than in any of the intra-peritoneal methods.

The method of turning the pedicle into the vagina is a tedious operation; the risks of hemorrhage and of injury to the ureters is even greater than that of a clean extirpation of the cervix.

The question is often asked, "Why leave the cervix or stump in at all; it is the most common source of hemorrhage and sepsis in all the intra-peritoneal methods?" Its removal is the perfected operation, but the results as yet have not been as good as in the extra-peritoneal method of treating the stump.

Hemorrhage is incident to the supra-vaginal, as it is to all the methods. The bleeding varies greatly, and sometimes is absent altogether. In this procedure the elastic ligature (Kleeberg's) and the wire ligature minimize the risks of hemorrhage.

The chief danger in the intra-peritoneal method is bleeding from the pedicle. Drainage, or the dry treatment, where adhesions have been extensive, is of vital importance in these operations. It is an important object to get and keep the stump dry. In some cases you need not change the dressings for a week or more. They should be changed when they become moist. The advantage should be kept in mind of sewing the edges of the peritoneum across the stump, thus preventing retraction when the loop has become somewhat loose from the shrinkage of tissue. The duration of the operation is one of the many factors to be considered. There should be that rapidity consistent with due caution and scrupulous attention to essentials. There is no time for fussiness. There is the shock of the anæsthetic. Extensive adhesions, bowel and bladder complications, require painstaking surgery, and tedious and slow the steps of the procedure, and somewhat lengthy, however deft and educated the hands engaged. Temperature is an important consideration. Supplying dry heat throughout the operation will avoid, to a very great extent, the shock due to the chill of the atmosphere. In the matter of shock, long exposure and long anæsthesia count for much. It should be kept in mind, however, that to deal with an abdominal wound carelessly or too hurriedly is bad surgery. Every step should be timed to the needs of the case, every motion those of a master workman, and there should be summoned into service every resource of our science and art.

When we come to consider hysterectomy in all its phases, the condition of the patients when they come into our hands, the dire extremity that drives them to us, that they come to us with general health broken down, often complete physical wrecks, and familiar as we are with resultant issues—we have no difficulty in appreciating the difficulties we have to encounter. The professional responsibility is a heavy one. The patient's condition suggests the urgent question: "What should be done?"

We appreciate the truth of J. Knowsley Thornton's statements, we accept them in the main as surgical truths, into the acceptance and practice of which the profession should be educated. As to the relative value of two very diffierent surgical procedures for the cure of fibroid enlargements of the uterus, he says: "I feel that I am confronting one of the most difficult questions in abdominal surgery armed with imperfect weapons. Medicine has long and vainly endeavored to deal satisfactorily with this disease, and now the surgeon's aid is invoked. I do not deny that many cases have been relieved by medical treatment, and that some have been cured while under such treatment. I do think, however, that it is an open question how many of the cases cured while under treatment were cured by the treatment, and I believe the majority of such cases have been due to the co-incident interposition of Dame Nature.

"A very large number of patients never suffer pain, or even inconvenience enough to make them consult either physician or surgeon. But admitting all this, there undoubtedly remain a large number of cases urgently demanding surgical aid. Some patients are brought face to face with death from hemorrhage, excessive growth of the morbid elements, or constant interference with rest from pain and discomfort. Others are gradually but surely reduced in strength, and have lesions of vital organs as the result of constant pressure and displacement. When surgical treatment is spoken of, we are told that we have no right to interfere with fibroids as we do with ovarian tumors, because the latter surely kill if left alone and the former do not. I am certain that this argument is only partly true, and everyone who sees a large number of cases will bear me out in the statement that numbers of women die every year from the direct and indirect effects of fibroid enlargements of the uterus.

"I would ask, How much of the general surgery of the day which is dangerous to life would continue if surgeons ceased to perform operations of expedience, that is, to operate for deformities and diseases which do not endanger life in themselves, though they deprive their victims of all the pleasures of life? I affirm, then, that there are many cases of fibroid enlargement of the uterus which endanger the lives of their bearers, and that there are many more which make these poor suffering women so miserable and useless that they are justified in running the risks of operation, and that the surgeon is justified in operating. We must remember that these operations are usually undertaken

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in extreme cases, and when the patients are worn out with disease and suffering.

"'The operation of complete supra-vaginal hysterectomy, with removal of both ovaries, has become, when properly performed, one of the most successful of the great operations.

"Hegar and Kaltenbach, by their new extra-peritoneal method, have saved eleven cases out of twelve, and the surgeons at the Samaritan Hospital have in the last year had equally successful results, also by the extra-peritoneal method, using Kœberle's wire serre-nœud in much the same way that Hegar uses the elastic ligature. These operations of hysterectomy and complete supra-vaginal hysterectomy still remain, however, very formidable operations. They are terrible mutilations; the patients are slow in convalescence. Is there then no operation of less danger, of quicker convalescence, and of better and more perfect results which we, as surgeons, can recommend to our patients.

"Thanks to American surgery, the brilliant conception of Blundell, in 1823, was made a recognized surgical procedure by Battey, in 1874, and from the labors of Hegar, Trenholm, Tait, Savage, and others, I am able to present to you a perfected operation, which will render this formidable hysterectomy still less often necessary in the future than it has been in the past.

"The complete removal of the uterine appendages, when efficiently performed, cures fibroids of the uterus with rapidity and certainty. And I will ask you to remember that this operation is not such a serious mutilation, and does not leave behind it any mark except a small linear scar on the perfectly closed abdominal parietes. The removal of the uterine appendages is attended with infinitely less danger to life than are the various operations for the removal of uterine fibroids.

"Are we then justified in subjecting our patients to the formidable operation of supra-vaginal hysterectomy when we can cure them by removal of the uterine appendages?"

It should be accepted as a settled fact that we are never justified in doing a hysterectomy when the appendages can be removed early in the growth of the tumor.

DIABETES INSIPIDUS

F. P. BUTLER, M. D., Marshalltown, Iowa.

July 3rd, '92, was called to see Mr. P. V. J., æt. 73; was informed by the messenger that he had diabetes, and was requested to be prepared to make an examination of the urine at the bedside. 20 years ago, he noticed that he had to get up once, and some nights 2 or 3 times to urinate; has always been a strong man living on a farm all his life; had never used liquor of any kind; in December, '91, his wife died, the blow was a very severe one to him, he not allowing the family to mention her name in his presence. In February, while asking the blessing he would suddenly stop, get up from the table, rush bareheaded out of doors, remain for some time, return and probably pick up a paper and read awhile, then go about his work; this proceedure was liable to be repeated at any meal. At this time there was a noted increase in the flow of urine; he consulted a physician who told him it did not amount to much and would soon pass away. He took a trip East and returned in a few weeks much improved; this was in April. His son who was in the West, desired him to meet him in Salt Lake City in May. He made all arrangements to do so, when he received a letter from his son, telling him that he could not be at Salt Lake by May first but would be soon. The son, being detained, kept writing that he would go soon, when, 10 days before I saw him, he wrote telling his father he would have to put off his trip for a long time. This affected the old man greatly, and at once there was a noted increase in the flow of urine; his head pained him very much and it was almost impossible for him to sleep, in fact it brought on an acute attack of his (I think) chronic trouble. He received one injury to the head in youth, it was slight and lasted him for a short time only; he has never had but one sick spell, that was typhoid fever years

ago, from which he recovered completely; his habits have always been active and steady; he has taken excellent care of himself.

At my visit, I found him very much exhausted, with neuralgic pains through the head and extending to the back and hips; he had for nine days been passing an ordinary chamber full (110 oz.) of urine in twelve hours. I applied Fehling's test but the result was negative. I prescribed F. E. Ergot m. 12, once in four hours, to be alternated with 8 grains of phenactine. Securing a sample of urine I repaired to my office and made a more thorough test, and found no sugar and a sp. gr. of 1000. His mouth was dry and he, of course, was very thirsty, drinking about as much water and other fluids as were eliminated by the kidneys; bowels constipated; relieved by pil. cascara sagrada gr. 2.

July 4th, a sample of urine was brought me in the morning; the color was better; the sample of the day previous being the color of water, no sugar, sp. gr. 1002, the amount passed being one third less than that of the twelve hours previous; he had a very comfortable day, appetite fairly good, for the past two weeks it has been very poor; the evening sample of urine being being the same as that of the morning.

July 5th, rested about the same; passing the same amount of urine as on the third, increased the ergot to thirty drops, continued the phenacetine, appetite not improved, still very thirsty, slept better than he has for several nights; in the evening increased the ergot to one teaspoonful t. i. d.

July 6, Dr. L. saw him in consultation; confirmed my diagnosis; patient much the same as yesterday, possibly a little more exhausted; his appetite being so poor we gave extract beef, also brom. potass., grs. 10 in place of the phenacetine, urine same as yesterday. July 7, rested well last night; urine darker color; sp. gr. 1002, slight decrease in the amount; took more nourishment than usual, strength about the same; continued treatment. P. M., amount urine passed in eleven hours 124 oz., sp. gr. 1001; increased bromides to 15 gr. July 8, A. M. Some stronger to-day, ate a hearty breakfast, slept well during the night, mouth was less dry; from 6.45 P. M. to 7 A. M. he passed 114 oz. of urine, 10 oz. less than during the preceeding 10 hours; continued treatment with orders to nourish him as much as possible; headache better; from 7 A. M to 7 P. M., July 8, passed 135 oz. of urine, but seemed no worse for it, sp. gr. 1001. July 9, from 7 P. M., July 8, to 7 A. M. July 9, amount of urine passed 90 oz., less than he has passed since he was taken sick, sp. gr. 1005, the highest I have found it; slept very well all night, ate a hearty breakfast, bowls moved by enema, mouth less dry.

He gradually grew worse from this time up to the 23d; several times we thought he could last but a few hours longer; the morning of the 23d, his long-looked-for son arrived and he at once commenced to improve, and by the 3d of August he needed no medical care, and in a week or two left for the west, where he regained his original health.

This I think a case of diabetes insipidus, brought on by mental trouble in the loss of his wife, and by the great disappointment in not meeting his son as he had expected, and very much desired to do; it is purely nervous, because there is not a trace of his trouble that will show that it was brought on by anything else.

REPORT OF INTERESTING CASES IN ABDOMINAL SURGERY.

M. PRICE, M.D.

Dr. Henry Leaman has kindly consented to allow me to report this case of mechanical obstruction of the bowel, as it is one of great importance, and it is his report I give and not mine. You will remember a similar case reported for the same trouble nearly two years ago, and as that case was one that many thought strongly reported I thought best to call your attention to this one reported by Dr. R. Leaman and operated by Dr. Henry Leaman, and I had the pleasure of assisting in the work.

DR. LEAMAN'S REPORT.—I was called to see Thomas P. on November 1, 1892, who presented the following conditions,

viz.: retention of urine relieved by the catheter, no passage from the bowels for three weeks previous, when he had done heavy lifting and active work. My idea was that there must be invagination or twisting of the bowel, and treated him after the usual methods both by mouth and rectum, still nothing in way of relief was accomplished; the enlarged adbomen grew until the tympanitic condition gave place to a slightiy dull note everywhere over the abdomen on percussion from excessive distention.

The vomiting, which was always present, now became somewhat stercoraceous. Respiration became shallow, rapid, and feeble from the encroachment of the diaphragm. Pulse feeble, mind wandering. But with all this the temperature never rose above 100°. On November 10, 1892, I called in my brother, Dr. Henry Leaman, in consultation. It was at once decided that nothing but an operation would give the patient any chance. Dr. M. Price was asked to see the patient and assist in the operation. All abdominal pain had ceased about three days.

The operation was done in a little room in Carleton Street, and, as usual to the location, the environments were not of the best. The patient was taken from the bed and placed on a table and a median incision made as in abdominal operations; the bowel enormously distended with liquid. A search was made for the point of obstruction, but I could not find any. Dr. Price also made an effort to find the obstruction. Failing to find one, we decided to open the bowel and empty out its contents and then make a thorough search for the obstruction. This also failed. The bowel was carefully stitched and the patient put to bed. In the next forty-eight hours he had about thirty evacuations. The bladder had to be relieved with a catheter. He made an uninterrupted recovery.

Mr. K., patient of Dr. Romaine, of Lambertville, N. J., aged thirty-two years, had had a number of recurring attacks of severe pain in the region of the appendix, all of which, save the last, have yielded in two or three days to purgation by salines. Last attack occurred May 2, 1893, and he was at once freely purged. This gave considerable relief; but the pain would return in twelve or fourteen hours in as much severity as ever. It was decided to have an operation, and I was asked to operate.

May 7. I carefully examined the patient, and from the history and the existence of peritonitis, and the fact that all his pain and suffering came from the region of the appendix, also that he had had a number of attacks with the same symptoms, I did a section and found from three to four feet of ileum adherent in mass over the head of the colon, greatly adherent and covered with inflammatory lymph. There was some pus in the mass, but very little. The bowels were completely separated, washed and replaced, and then the appendix looked for and found in a hard mass curled up and adherent to the head of the colon on one side and to the pelvic bone on the other. The adhesion to the pelvis was loosened, the appendix and bowel were brought out, but the bowel could not be removed without great injury. So, with thorough irrigation of the peritoneal cavity, stitching of the lower end of the wound, the hardened mass at the head of the colon, with the appendix attached, was placed directly under the upper edge of the wound and over it a gauze drain, which was left in place for thirty-six hours; afterward dressed daily.

Patient had no increase of temperature or pulse after operation, and made an uninterrupted recovery.

Mrs. H., aged forty years, suffering from great nervous prostration, constant pelvic pain for the last two years. She was treated by Dr. Peltz, her family phsician, with great patience and care, but without any lasting benefit.

I examined her in February in consultation with Dr. Peltz, and found no marked pelvic disease—nothing that warranted an operation. In one week after my visit she was examined by a Philadelphia gynecologist who used an instrument to measure the depth of the womb, and its freedom from adhesions. The instrument gave her violent pain and greatly increased her suffering. May 4th. I again examined her and found the uterus fixed, and on the left side a large fluctuating mass —right side adherent. May 6, 1893. I did a section and removed a large ovary tand tube distended with blood-clot, contents measuring about half a pint of decomposing blood and pus; the right side a pus tube.

How much this trouble was due to a

previous existing disease, or how much to the intra-uterine examination, I leave you to judge.

Herbert H., son of Dr. H., of Pemberton, N. J. Appendicitis. Operation; drainage; recovery. This is the third case in eight months that I have seen in the hands of this physician—two operated on and recovered. The third, a young man nineteen years old. When I was called he insisted he was much better, and would not submit to operation. He had well-marked symptoms of abscess of the appendix. He continued to improve, and for three months afterward declared to Dr. H. that he was perfectly well. While unloading a can of milk he felt something give way in the right inguinal region and died in twelve hours, before anything could be done for him, of peritonitis.

GANGRENE OF FOOT AND LEG.

B. H. POTTS, M.D., PHILADELPHIA, PA.

I wish to call attention to a few cases of gangrene of the foot and leg that occurred during the service of Dr. Willard in the Pennsylvania Hospital, and mention one case particularly that shows the efficiency of the high operation performed as early as possible.

CASE I. GANGRENE OF FOOT—RECOVERY.

Man, æt. 42 years. Had always been a healthy man. Two weeks before admission to the hospital he noticed a pain in the outer side of the left foot and that the little toe of the same foot was black. No history of traumatism of any kind could be obtained. The pain gradually grew worse, and one week after admission the nail of the little toe was extracted. Sharp and lucinating pains now began to shoot from the toes to the ankle. Two days later the gangrenous portion of the toe was removed, and a laudanum poultice applied. At the end of another week the entire toe was removed. About this time the glands of the left groin became enlarged; ung. hydrarg. was applied and under this treatment they gradually improved. The wound of the toe healed at the end of ten days, and one week later patient was discharged cured.

CASE II. GANGRENE OF FOOT WITH ERYSIPELAS—DEATH.

Patient was admitted to the hospital in 1883. Twenty years before this his left leg broke out with ulcers on the inner side of the tibia, which discharged until six months before admission, when they healed leaving cicatrices; about this time his right foot began to trouble him. At this time also, six months before admission, his right foot was frost-bitten, and steadily grew worse. The outer side of the great toe became sore and painful, and this condition extended to the inner side of the foot. On admission the great toe was gangrenous throughout its extent; there was considerable sloughing at the end, and its nail had come off; the second toe had also lost its nail and both were cold and insensible. Vessels were tense and thickened, but not atheromatous; glands in the right groin were much enlarged. The slough gradually extended along the inner side of the foot, leaving the metatarsal bone of the great toe bare and necrosed. The muscles on the sole of the foot had sloughed to within two inches of the inner malleolus. This slough was gray ashen in color, had a very offensive odor and was painless.

The foot was dressed daily with boroglyceride for one week when a charcoal poultice was applied. One by one the toes were removed, until at the end of five weeks all the toes of the right foot were gone. The granulations now became purple and livid; there was no soreness or pain. Inflammation of an erysipelatous character set in, and the general condition became very poor. Patient was given tr. ferri. chlor. and quinia. The gangrenous process slowly advanced until the slough extended to the ankle. The patient began to steadily lose flesh and strength and died from exhaustion at the end of seven weeks.

CASE III. GANGRENE OF BOTH LEGS—DEATH.

Man, æt. forty-four years. While exposed one cold day patient's feet were frozen, the left one more severely than the right. During the six months following the exposure, but little attention seems to have been paid to the feet, but the process of gangrene started and steadily advanced and at the end of that time, the line of separation having formed, the toes of the left foot were amputated. On the day following the operation, gangrene of the stumps ensued and when patient was brought to the hospital, one week after the operation, the gangrenous process had extended to the knee on the anterior part of the leg and a few inches below the knee posteriorly. Inflammation extended half way up the thigh which was greatly swollen and crepitant. Patient was very weak; arteries were atheromatous.

It was decided to wait until patient's condition improved and he was put on a course of tonics and stimulants. The leg was dressed with a hot solution of bichloride 1-1000 and wrapped in cotton and wax paper. The line of demarcation formed at the end of ten days. Patient's condition was improving slowly but steadily. Two weeks after admission, a small black spot appeared on the great toe of the right foot which was very painful, but did not spread. Four weeks after admission, the gangrenous portion of the left leg was taken off at the knee joint; the tissues were all dead and there was no hemorrhage; no sutures were introduced but the flaps were strapped. The end of the femur was black and showed no line of demarcation.

Three days later the patella was dissected away from the soft tissues and the periosteum from the bone and the latter sawed off about one inch and a-half above the condyles. The great toe of the right foot was amputated, but at once began to slough.

At the end of two months the leg stump had entirely healed, but the stump of the toe was discharging profusely. Until this time the patient had seemed to improve, but now the gangrenous process began to extend from the toe to the ankle, involving the whole foot, the inflammation extending to the knee. Appetite became poor and strength began to fail and patient went down steadily until the end of the third month when he died from exhaustion.

CASE IV. GANGRENE OF FOOT.—HIGH OPERATION.—RECOVERY.

Man, æt. fifty-three years. Sixteen years ago a piece of ice fell on the right foot crushing the fourth toe; this wound was carefully treated but was very slow in healing and caused him much pain subsequently. Eight months previous to admission, in the spring of 1892, a horse trod on the right foot and two months later another horse trod on the same foot. After this last injury the fourth toe of the right foot bursted and the whole foot looked unhealthy, especially the toes, looking blue and feeling cold; blisters formed in different places at different times. In the latter part of July, 1892, the fourth toe was amputated; the stump healed very slowly. During August all the toes began to show decided signs of gangrene and the pain increased in severity.

On admission, January 7th, 1893, the remaining four toes were found to be gangrenous and the entire lower half of the foot was swollen, tender and caused severe pain. The urine was free from sugar and albumen. Vessels were atheromatous. An immediate high operation was advised.

January 20th, 1893, the leg was amputated at the knee joint. No Esmarch bandage or tourniquet was used, but digital compression was made upon the femoral artery in Scarpa's triangle, and the vessels caught up as they were cut. The popliteal artery was tied, very loosely, with a broad ligature composed of four strands of No. D catgut. No antiseptic solution of any kind was used in the wound, but a very dry stump was obtained and closed up with catgut drainage.

Patient rallied well following the operation. At the end of three weeks the stump was dressed for the first time and found to be clean, sweet and perfectly united.

Patient was now gotten upon a chair, then on crutches and at the end of seven weeks was discharged. He has reported several times by letter during the past few months and is doing very nicely. Is in better general health than he has been for years.

It is to the last case I would particularly call attention as I think it shows the advantages of a high operation. The case

did not present any favorable symptoms; the patient was weak and emaciated; had been suffering very severe pain for months and was very nervous and excitable. His arteries were very brittle. The gangrenous process was slowly extending up the foot, nearly the whole of which showed signs of inflammation. The result obtained from the operation, however, could not have been better for there was left a firm, solid stump which he will be able to use with perfect safety.

SOCIETY REPORTS.

SURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting, April 10th, 1893.

Dr. John C. Cecil, President, pro tem. in the Chair.

INJURY TO HAND—PROPOSED OPERATION.

Dr. Turner Anderson: This young man five months ago received a cut in the hand from a wood chisel; he suffered very little at the time and the wound healed. About a month after he began to suffer considerable pain and the thumb began to swell. He went on working as usual notwithstanding the inflammation and pain.

I think the treatment is plain; there is every appearance of pus and I believe it will only be necessary to make an incision and clean it out thoroughly. This is what I propose to do.

DISCUSSION.

Dr. A. M. Vance: Dr. Anderson's suggestion as to treatment in this case I believe is the only rational procedure, and there is no doubt in my mind but the trouble will be completely relieved by such an operation.

TUBERCULAR ARTHRITIS.

Dr. W. L. Rodman: I saw this young man with Dr. Chenoweth, and I am sorry the doctor is not here to give the history in detail. I first saw the patient at the University Clinic and asked him to come out to my office that I might get the whole history. I have a memorandum on a card which I will read, it being a few points in regard to the history that I was able to elicit from the patient himself: R. C., aged sixteen years; parents living and in good health. Gives no special history of tuberculosis; several brothers and sisters living and in robust health. Two brothers died during infancy. Felt perfectly well until December 1st, 1892; at that time commenced to have daily chills about two o'clock P. M., followed by fever and sweats. December 20th, right arm commenced to pain him at the elbow. December 26th, noticed swelling for first time; swelling greater at elbow joint, but not marked at any point. At that time he thinks the swelling was about half as extensive as it now is. While it was painful he could use his arm some. Has had a cough since December 1st last. Lost about fifteen pounds in flesh. Arm has not increased in size for six weeks. I would like to have the opinion of the society as to diagnosis and treatment.

DISCUSSION.

Dr. Turner Anderson: Is there evidence of disease of the lung?

Dr. W. L. Rodman: Yes, in the lower part of the right lung.

Dr. W. C. Dugan: I operated upon a patient having a condition very much like this at the City Hospital during my term of service there last year. Patient had been treated a number of months for rheumatism and was referred to me from the medical ward. I resected the arm and found it was a condition of refying osteitis; removed the olecranon process,

found the bone perfectly soft; and with a pair of forceps I clipped off the condyles, being careful not to interfere with epicondyles to which the lateral ligaments are attached. There was a good deal of œdema of the arm, which soon disappeared. This patient has a good limb with almost perfect flexion and extension and has regained his health.

In regard to treatment in case referred to by Dr. Rodman: I would excise the elbow, and treat it openly with iodoform dressing.

Dr. A. M. Cartledge: I think it is a case of tubercular arthritis, although the shape is a little unusual. The amount of induration on one side seems unusually low, and looks a little curious. I take it that there is very likely synovitis as well as osteitis. I agree with Dr. Dugan that resection is the proper procedure.

Dr. H. H. Grant: From the examination I made of the case I think it is tubercular arthritis; there can scarcely be a doubt about it, but that one doubt would be that there might possibly be some sarcomatous disease of the joint. There is very little effusion.

Dr. A. M. Vance: What part would the phthisis play in treatment of the joint?

Dr. W. C. Dugan: I should not consider it at all.

Dr. W. O. Roberts: I agree perfectly with the statements already made, that it is clearly a case of tuberculous disease of the joint and resection is the thing to do.

Dr. W. L. Rodman: Everybody has expressed exactly the same opinion that I had already formed in regard to this case. I felt almost positive it was a case of tuberculous disease of the joint, after taking the patient to my office and getting the history. I believe the joint ought to be cut into and very likely resected.

PARTIAL THYROIDECTOMY.

Dr. A. M. Vance: Here is a specimen I removed from a young man twenty-five years old yesterday. The tumor was just over and a little to the left of the larynx. When an incision was made, the cartilages were completely exposed. At the time I first saw the case I thought the enlargement was part of the thyroid gland. I saw a similar case in this city some time ago, the growth was removed which looked and felt very much like thyroid gland. The history was substantially the same as that of the case reported to-night. In the operation yesterday I found a great blood supply to the tumor, three very large vessels; owing to this I was more convinced than ever that I had removed a portion of the thyroid gland. Dr. Rodman saw the specimen shortly after the operation, and thought the trouble was probably lymphatic. Microscopical examination, however, proved it to be thyroid gland. I will quote the microscopists report:

"Louisville, Ky., April 9, 1893.

Dear Doctor:

The growth left me has all the appearance macroscopically of thyroid gland tissue, and thus it proves itself to be upon microscopical examination; consisting of a frame work of fibrous tissue enclosing glandular spaces, lined with small, flat epithelial cells. The glandular spaces are in part filled with a homeogenous material (colloid), others are filled with round cells (lymph cells).

Diagnosis—Thyroid Gland.

Yours sincerely,

Louis Frank.

Dr. A. Morgan Vance."

This is the second case of the kind I have seen in the last twelve months.

DISCUSSION.

Dr. E. R. Palmer: Was there much hemmorhage during the operation?

Dr. A. M. Vance: There would have been had I not used clamps.

Dr. W. L. Rodman: I saw Dr. Vance shortly after he removed this growth and he asked me to look at it and give my opinion upon it. I looked at the specimen rather carefully; it was not opened at the time, and told him after my examination that I thought it was a lymphatic gland. I am more certain of that position now since it has been thoroughly opened, notwithstanding the microcopist's report. It has every appearance in the world, color and everything else, of a lymphatic gland, and I am reasonably sure that is what it is. It does not look like thyroid tissue. I have dissected a hundred thyroid glands, and am sure they did not have this appearance. The history of the case furthermore points clearly to lymphatic enlargement rather than to disease of the thyroid gland. We do have growths of

the thyroid that occur sometimes from an accessory portion, but as I have said before this does not look anything like thyroid tissue. Thyroid tissue is purplish red, about the color of liver.

DR. A. M. CARTLEDGE: I would suggest that Dr. Vance have Dr. Frank make some additional sections in this case. If it is thyroid tissue it has every appearance of having undergone malignant degeneration. I agree that it does not look like thyroid tissue. I know of no change that the thyroid body is subject to which would give it such an appearance, unless it be sarcoma. I have never seen so much connective tissue in any form of goitre as there is in this case, and I am not aware of any pathological condition that would give it this appearance. However, the microscope ought to show just what it is.

DR. A. M. VANCE: Goitre affects the central lobe of the thyroid, the shape being caused by pressure of the skin over the hypertrophy. In the case reported by me the thyroid gland on every side looked like this tissue when it was exposed. This is evidently the isthmus hypertrophied.

DR. W. L. RODMAN: Benign growths from the thyroid gland are practically unknown. The only benign growths or enlargements that we have of the thyroid are originally cases of hypertrophy or bronchocele, and then cystic degeneration of the gland. Malignant disease does sometimes occur, but it is exceedingly infrequent, so infrequent that I doubt if any gentleman here has ever seen one. I have never seen one, and in the absence of benign growths from the thyroid, the comparative rarity of malignant growths of the thyroid, with the history of this case I feel quite safe in saying that it is an enlarged lymphatic gland.

DR. A. M. Vance: I have very little to add in closing. Certainly I would rather take the testimony of Dr. Frank (who is recognized as one of the best and most accurate microscopists in the city) after a careful microscopical examination, than the opinion of Dr. Rodman or, in fact anybody else, based upon a macroscopical examination of the specimen. If Dr. Rodman will specify some anatomist that he would like to make further investigation of the specimen, I shall be very glad to send a portion of the growth to him. Or if he prefers, I would be glad to divide the specimen with him, that he may have it examined by anybody he desires.

INTESTINAL RESECTION.

DR. H. H. GRANT: I have a specimen here which is the result of an intestinal resection made upon a living animal two weeks ago. After killing the animal I removed about eight inches of the gut embracing the portion resected, which has not yet been opened, as I wished to exhibit it here with a view of showing how much the lumen of the bowel is diminished, if any; and also to see the result of the resection generally. The animal was thoroughly anæsthetized, the incision made and several inches of the intestine exposed; resection was quickly done by the aid of the clamp devised by myself which I present here for your inspection, and which was also shown at the meeting of the Southern Surgical and Gynecological Society several months ago. The animal was under chloroform thirty-five minutes, eleven minutes were occupied in suturing the intestine; the ends were invaginated in the usual way, continued suturing being employed. By an examination of the specimen you will see there is very little contraction; the sutures have been completely buried; there was no peritonitis; the animal did remarkably well after the operation, and the result is perfect. The operation was done very leisurely, and I am satisfied it could be easily completed in twenty minutes. No plate of any kind was used. I have made this experiment several times, using only one line of suture and the result has been perfect, except in one instance.

This clamp is used only for resection; the ends of the intestine are laid parallel with each other, and the suturing done while the clamp is in situ. It shortens the operative steps very much, renders approximation of the openings absolutely accurate, and defines the limit of the fenestra beyond chance of error. Such a clamp takes the place of skill to a considerable extent.

DISCUSSION.

DR. W. C. DUGAN: The clamp certainly shortens and simplifies the operation very much indeed. The clamp designed by Dr. Grant is the best contrivance for the purpose that I have ever seen.

VULVO-VAGINAL TUMOR.

DR. W. O. ROBERTS: This specimen is simply a vulvo-vaginal gland dissected out to-day. The patient was a young widow who noticed this growth three years ago, and claims that a short time before the appearance of the growth she was considerably bruised during coitus with her husband, that there was a good deal of swelling about the parts and some time after that while bathing she noticed this lump. She has been worrying a great deal about the matter, simply from the fact of the growth being there, and came to the city to have it removed. I have seen a good many such cases and have usually laid them open, not finding it necessary to dissect them out. However, in this case the patient was very anxious to have it removed, which was done very easily and quickly.

DISCUSSION.

DR. W. L. RODMAN: Was the growth on the left or the right side?

DR. W. O. ROBERTS: On the left side.

DR. E. R. PALMER: I see quite a number of these cases, and the question asked by Dr. Rodman brings up a point that I had not thought of before; in three of the cases recently seen by me the enlargement was on the right side. I have never removed but one of them in toto. When this complete operation is done there remains a depressed, hard cicatrix at the point of removal, which is entirely avoided when these glands are simply opened, curetted and packed and provided the operation is thoroughly done, the cure is equally assured.

With reference to the etiology, I believe almost invariably that the condition is of gonorrhœal origin. It is hard to say that this is absolutely the case, but I believe in the vast majority of cases it can be traced to gonorrhœa. The usefulness of the gland is permanently destroyed by these enlargements so far as future function is concerned, whether they be dissected out or curetted and packed; the secretion is unilateral afterward, that is, is confined to the side not diseased.

DR. W. L. RODMAN: I have seen I think five or six cases of enlarged glands of this character in my experience, and my observation has been different from that of Dr. Palmer; I have never seen but one on the right side. I would like to ask Drs. Anderson and Cecil what their observation has been in cases occurring after labor as regards the side affected, and their explanation as to why the left side is more frequently diseased than the right. It has not only been my experience that the left side is far more often affected than the right, but in looking the matter up several months ago, I found that the vast majority of these enlarged glands occurred on the left side. The only case I ever saw occurring on the right side was the last case I saw which was two or three months ago, a patient of Dr. McDermott's. The enlargement was noticed soon after child-birth, patient forty-five years of age.

My experience differs again with that of Dr. Palmer. I do not think I have seen any cases where they could be traced to gonorrhœa. Most of the cases I have seen have been after child birth, in a class of patients above suspicion.

DR. TURNER ANDERSON: With reference to the location of these enlargements, I do not think I have seen them more frequently on the left than on the right side. Concerning the etiology—it is my opinion that the majority of them occur from gonorrhœal infection. At least I have seen more cases among prostitutes than any other class of women. There is another point of some importance in connection with the etiology. Occasionally after perineorraphy, obstruction of the external duct is sufficient to cause cystic degeneration of the gland,—which we must recollect is of the same character as the mammary and other glands of the body, and just as liable to undergo cystic degeneration. I have a case now that came to me a few days ago with a tumor in the left side of the vagina which I diagnosticated without any difficulty as an enlarged vulvo-vaginal gland, which has probably undergone some kind of degeneration, as it has attained a considerable size. This patient was operated upon in Cincinnati for lacerated perineum, and it is probable there is obstruction of the external duct, which we know opens just within the ostium vagina. I do not expect to find an abscess, but believe the function of the gland has been interfered with by occlusion from the operation of perineorraphy. The case was a satisfactory one as regards the operation, but it has probably obstructed the gland. This is a matter that

ought to be taken into consideration in perineorraphy, but at the same time I do not see how it can well be avoided.

With reference to the point raised by Dr. Palmer concerning the treatment of these cases—incision and packing, and in that way preserving the symmetry of the parts, preventing shrinkage or depression—I do not know that my attention has been especially directed to that. The usual operation is to simply incise the gland, pack and let it heal from the bottom. But in the case just referred to, upon which I shall operate in a few days, I believe I will adopt the plan followed by Dr. Roberts, and dissect out the gland bodily. I think this is advisable owing to the size of the gland.

Dr. J. G. Cecil: The point made by Dr. Palmer seems to me to be the correct one in regard to the etiology, as far as my reading and observation go, that these enlarged glands are largely due to gonorrhoeal infection. The point made by Dr. Anderson concerning the class of patients, I think will be borne out by observing the patients in which these troubles are usually found. Certainly, I have seen more in prostitutes than any other class of women. I do not see how they can follow as a result of labor, unless it be in the manner already described by Dr. Anderson as following the operation of perineorrhaphy; that is after the duct was torn across in a lacerated perineum, then we might have occlusion of the duct and cystic degeneration result. I can conceive how that might follow as a result of labor, but I cannot see how there could be any other method of degeneration or abscess as a result of labor.

I was quite impressed with the description, or method of operating described by Pozzi. It is sometimes very difficult in dissecting this gland out, especially when it is simple cyst, to prevent rupture; as long as we can prevent rupture dissection is easy enough, but if rupture occurs then it becomes more difficult, then complete dissection is advocated, it being difficult to follow the cyst wall after it is empty. His method is described about as follows: He introduces a trocar and canula withdrawing the fluid before he attempts to operate, fills it with a warm solution of paraffine, then the application of cold converts the paraffine into a solid tumor, which makes a very nice ground to work upon.

I am inclined to the belief that the total obliteration of these glands is the proper treatment. Of course the function is destroyed if an incision is made and the gland packed; if there is an abscess or cystic degeneration they are of no further use and might as well be removed.

I have never noticed any particular diffierence in the two sides, and think they are as apt to enlarge on one side as the other.

Dr. W. O. Roberts: I have seen a number of these cases occurring in other than prostitutes. I can recall now three cases in newly married women. This, I take it, is cystic degeneration; I do not think there is any pus in it; it has existed too long, something over three years.

Note: The tumor was opened by Dr. Roberts and found to be cystic.

Joseph M. Mathews, M.D., then read a paper on

DISEASE IN THE SIGMOID FLEXURE, WITH REPORT OF CASES.

About one year ago, I had the honor of reporting to this society some investigations that I had been making of diseases in the sigmoid flexure. The paper elicited considerable discussion, and I was asked to prolong the report at the following meeting of the society. Inasmuch as the subject was treated at length in my work on diseases of the anus, rectum and sigmoid flexure, which appeared shortly thereafter, the second report was never made. From the friendly reviews of this chapter in the book and from many letters of commendation that I have received from the profession, I take it that the discussion of the subject was not inopportune. This paper is intended only to give a recitation of some cases that have fallen under my observation lately and to mention some procedures looking to the surgical treatment of the same. Although recognized from all time that the sigmoid was a favorite seat of disease, but little was done for its treatment, either in a medical or surgical way, until recently. As far as my knowledge goes, Dr. W. T. Bull was the first to successfully remove the sigmoid flexure for malignant disease. A few months ago Dr. Lange reported three cases of a similar kind, with one success. It must be understood that success means, at least in Dr. Lange's cases, the survival of

the patient from the operation. The time is too short to say whether the eradication of the disease is effectual. Dr. Bull claims that his patient lived five years after the operation. In a noté to me concerning the case he says, "The carcinoma was excised in January, 1887; she was in good health up to October, 1891, and there was no recurrence at the autopsy in December, 1891, being nearly five years." Senn has never been a believer in colotomy for any condition, but he has devised other operations to meet the demand. He has anastomosed the ileum into the rectum, and also the colon to the rectum, successfully, and claims, as a result, that if stricture of the sigmoid is to be overcome, his operation would be preferable to an artificial anus, if the opening where the anastomosis was made did not with time contract too much. To carry out the idea of Murphy, that, by using his button, anastomoses of the intestine could be made either end to end or lateral in a few minutes, Dr. Joseph B. Bacon, of Chicago, has just recently been making some very interesting experiments, looking to the surgical treatment of non-malignant stricture of the sigmoid flexure or rectum. Because of the importance and newness of the subject, I will be permitted to quote freely from a late article by Dr. Bacon, describing the method. "The operation consists in completely severing a portion of a loop of small intestine that is lying in proximity to the rectum and anastomosing each end with the rectum, so as to form a new channel around the stricture. The mesentery of the severed piece of gut is left intact. A piece of intestine is selected from the loop, at a point where the mesenteric blood vessels supply a large nutrient artery for each end of the piece to be transplanted. It is necessary to remember, in cutting out a piece for transplanting, that it must be long enough to extend from a point below the stricture to a point above the stricture where the rectal wall is not too much thinned by ulceration; and also to remember that the button to be inserted into each end will shorten the piece about one and a half inches. The operation is completed by scarifying the approximated surfaces of the rectum and transplanted piece of gut and suturing them together, so as to have the two walls united into one firm septum. At a subsequent operation this septum is removed by compression forceps and the lumen of the rectum and transplanted piece is made into one cavity, and the sloughing out of the compression forceps will destroy one-half of the stricture, together with the septum, thus putting an end to the contraction of the cicatricial tissue forming the stricture. The mesentery of the transplanted piece of gut is sutured in close approximation to the parietal wall, to prevent a possibility of a loop of intestine sliding under it and becoming strangulated. A Murphy button is now used to make an end to end anastomosis of the gut, from which the transplanted piece was resected and its mesentery sutured carefully, so as to leave no opening for hernia to occur."

I will make this report by Dr. Bacon suffice for any further mention or discussion of the surgical treatment in such cases, reserving the right to discuss this method in some future article.

There are several conditions which, if left alone, will produce such pathological changes in the sigmoid flexure as to call for the surgical interference as suggested by Bull, Senn, or Bacon, and yet, if these conditions are recognized early, can be prevented from such ultimate results. I must confess that after a stricture has formed at the sigmoid or in the rectum, in the great majority of cases no good can come from the treatment of the stricture *per se*, and recourse must be had to such procedures as those mentioned in this paper. And in this day, when such aseptic surgery can be done in the peritoneal cavity, I see no reason why such attempts as suggested by Dr. Bacon should not be undertaken. But as prevention is better than cure, I will conclude my paper by dealing with the treatment of such conditions as give rise to the necessity of such operations.

The sigmoid flexure is peculiarly liable to local disease. Outside of malignant affections its anatomical arrangement is such, that it is made the receptacle of the fæces, both as the mass is attempting to pass out in the act of defection, and the remaining portion is pressed back by an anti-peristaltic movement. Hence it is no wonder that it is subjected to congestions, inflammations, ulcerations, etc., and these combined frequently establish non-malignant strictures. I have tried to demonstrate in a former article that the flexure was often, I might say commonly, the seat

of impaction by fæces, and the fatality of such impactions sometimes all can attest. In addition to many cases of sigmoid disease that I have already related, I now desire to call attention to but a few:

No. 1. Mr. J., aged twenty-eight. By occupation a civil engineer. About five months ago complained of a slight diarrhœa. He consulted a physician, who gave him the usual remedies for such cases, but the discharges increased, from four or five daily, to twelve or fifteen in the twenty-four hours. His condition growing serious, and his disease not responding to internal treatment, his physician sent him to me, thinking that the cause might be found in the rectum. His diarrhœa had now continued five months and he had lost forty pounds of flesh; no energy, and all appetite gone. An examination was now made of the discharges and they were found to be composed of blood, mucus and pus. Not dysenteric, as no elevation of temperature or pulse occurred at any time. An examination of the rectum revealed an extensive ulceration, beginning about four inches up and extending evidently into the sigmoid flexure. This man gave no history of syphilis. I had him discontinue all internal medication, go to an infirmary and observe perfect rest in bed, first giving him a free purge. I then washed out the sigmoid with hot water. He was put on a special diet and the local treatment begun, which consisted in depositing in the flexure daily one ounce fluid hydrastis diluted with two ounces of water. From the first injection the discharges began to assume a natural condition, and at the end of ten days all mucus, blood and pus had disappeared. In this time his appetite had returned and he began to take on flesh, although on a liquid diet. At the end of two weeks he left for Chicago with directions to inject the sigmoid every alternate day. This case is but a sample of a number that I had to report, but my time being limited, will make this one suffice for the evening.

DISCUSSION.

Dr. H. H. Grant: Could the small bowel be made to do the duty of the rectum in case of anastomosis? Would not the fecal matter block up below where the transfixion was effected? Would it not be better, in other words, to make an artificial annus, as it is now made, for the relief of these conditions?

Dr. J. M. Mathews: I suggested that it might be better than a colotomy, and for that reason suggested that it might be better to anastomose the sigmoid flexure or the colon to the rectum, as practiced by Senn than to attempt the operation suggested by Bacon.

Dr. W. L. Rodman: I think Dr. Mathews has called our attention to a very important matter, that is, flushing the sigmoid flexure. For this purpose I believe the rectal bougie preferable to the tube, as the latter is liable to curve upon itself. I have seen harm result from the use of the tube. I once made a post mortem upon a patient of a medical friend who had been treated by local applications for dysentary through a rectal tube fully eighteen inches in length. The patient died of peritonitis. In making the post mortem I found the belly full of fluid, soap-suds, etc., used in the injections, which had passed out through a perforation of the gut made, I think, by the tube.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting, May 24th, 1893.

Dr. Mordecai Price presented a Report of Interesting Cases in Abdominal Surgery. (See page 15.)

DISCUSSION.

Dr. Joseph Hoffman: Dr. Price stated that in the cases on which he had operated he had not met with high temperature except in two instances. The question of temperature is an interesting one. In one of the most serious cases of appendicitis the temperature was not markedly high, although there was gangrenous gut and abscess. The pain and tenderness were, however, marked. I have seen a case in a young child where the temperature was abnormally high.

With regard to operation: I am puzzled to decide in what cases operation should be done. I have seen cases in which the condition seemed to be imminent, recover without operation, and I have seen cases apparently parallel die. Where the line is to be drawn between the cases that will recover under medical treatment and those in which operation is required is difficult to decide. Within a week I was called to see a boy eighteen years of age in a second attack. There was high temperature and a mass easily to be made out. The bowels had been bound up, and no relief was afforded by anything that had been done. I put the boy on purgative medicines and within forty-eight hours there was a reduction of temperature, and in another forty-eight hours the abdomen was perfectly pliable and the boy apparently well. I suggested operation, but it was not accepted. Whether or not this trouble will come back, I cannot say.

Dr. Addinell Hewson: I have made some investigations in the dead body with reference to the position of the appendix. I examined some 74 bodies. In this number I found evidence of appendicitis of more or less severe degree in 23 cases. Only one showed that there had been operative interference. The investigation was not made to determine the presence of appendicitis, but simply to obtain anatomical data by which the position of the appendix could be more definitely reached. The position of the appendix varied considerably. In one instance it was in contact with the under surface of the liver. In many instances it was in the cavity of the pelvis. In many it was above the crest of the ileum, and in the majority of cases the base of the appendix was above the inter-iliac line—this is the line drawn from one anterior superior spinous process to the other. I made some notes in reference to other points in connection with the appendix, but they are not germain to the discussion. I merely wish to recall the fact that there were evidences of appendicitis in 23 of the 74 cases.

The results of examinations will be published later in the *Amer. Journ. Med. Sciences.*

Dr. Daniel Longaker: It seems to me that the last case reported is only explicable on the assumption that, as a result of rude manipulation, some focus of pre-existing disease was disturbed, or, if the trouble was not produced in that way, it must have been set up by the production of endometritis and extension from this point. I assume this from an experience that I have had. A woman supposed herself pregnant and introduced a knitting needle into the uterus. She experienced no pain at the time, but in the course of a few weeks there was severe suffering and septic endometritis. Whether or not she was pregnant was never ascertained. The inflammation soon extended and involved the tubes, and in a few weeks there resulted a large tubo-ovarian abscess and a decided attack of pelvic peritonitis. The trouble was promptly removed; but I may say that the endometritis still lingers, and will probably require a second operation, that of curettement. I would ask whether or not this condition exists in the case referred to by Dr. Price.

Dr. James Collins: Regarding the relations of medical and surgical treatment in appendicitis, I am sorry to report that I have seen several patients die in whom I had advised operation, but was overruled by the medical attendant. I have seen one or two saved, but that is such a limited number that I dare hardly speak of it in connection with the number of cases reported to-night. I suspect that it is safe treatment, where the obstruction and symptoms of appendicitis continue after the second day, to consider the advisability of surgical interference, and especially so if there is present a sign not often mentioned, which in the male is pain in the line of the cord and testis. In one or two cases the medical attendant has taken the ground that because there was no high temperature there could not be any very serious inflammation in progress. I have for many years advocated operation in appendicitis, and I have said that I would never let another case where there were evidences of peritoneal inflammation die without operation.

The President, Dr. De Forest Willard: I am glad that Dr. Price emphasized the point of low temperature which is so common. It seems that in these cases the temperature is positively no indication of the severity of the case, and is not to be relied upon unless it is very carefully watched. There are certain cases where, if it can be watched day after day, it then becomes an important element in diagnosis and prognosis.

In common with Dr. Hoffman, we are all seriously puzzled to draw the line between the cases that will recover without operation and those which should be operated upon. This subject cannot be discussed too frequently, and every case should be recorded and thoroughly considered and studied.

Dr. George E. Shoemaker: The point of diagnosis is one of great interest, and those who have had surgical experience with appendicitis should emphasize the fact that there are no signs which are absolutely reliable. Dr. Willard will recall a case which I recently reported, and which he afterward saw, where there was gangrene of the appendix and where there was no tumor; where there was no tenderness in the rectum, and where there was no tympany. The belly was scaphoid, and yet there was gangrene of the appendix, with perforation. I was utterly deceived as to the necessity for operation in a case which occurred several years ago. A German woman of exceptionally good physique, and whom I knew to have no uterine or tubal disease, was suddenly taken with chill and pain in the right iliac fossa. The temperature went up to 104°, and the symptoms persisted for four days. I considered the case to be one of appendicitis, feared pus, and advised operation. I had a consultant who also advised operation. The patient refused and asked to see still another consultant, and in the twelve hours of consequent delay her condition completely changed for the better, the temperature went down and in time she made a complete recovery without operation. Within a few days she passed pieces of tapeworm, which probably had been the exciting cause of the appendicitis. As a contrast to this unexpected recovery, on the very day of my proposed operation a young man died in this city because he had a pint of fetid pus about his appendix, and because one of the most capable diagnosticians anywhere denied its presence till too late. The great majority of cases that I have been called upon to observe have gotten well without operation, because pus did not form. But the attacks recur. This question is one of gravity. A gentleman came to me to-day to know what I would advise in a case which I had seen some years ago with him. The patient then had appendicitis and recovered; but the attacks have recurred, gradually becoming more severe and the intervals shorter. I said that in such a case operation was advisable, but each case must be studied by itself. There are no definite rules, and never will be.

Dr. William M. Welch: I have seen a few cases of appendicitis, and recall some four or five that have recovered without operation. Still I am inclined to think that surgical interference is a matter to be thought of in all such cases. Last summer I saw a case in consultation where I proposed that a surgeon be sent for with a view of considering the propriety of an operation; but the patient positively refused, and after suffering for two or three months recovered, as I believe, perfectly. One of my cases, a child, developed an abscess, which discharged through the umbilicus for a considerable time; but even this was followed by recovery.

You will remember, Mr. President, that a year ago a discussion took place here on this subject, and that the surgeons insisted that an operation should always be thought of, while the physicians held that surgical interference was required only in a small proportion of cases. There was present at that meeting a layman of considerable prominence who told me the next day he was deeply interested in the discussion, as he had recently gone through an attack of appendicitis; that the surgeon who was called in consultation advised operation, while his attending physician opposed it. He said he followed the advice of his physician and is glad that he did so. I mention this to show that recovery from appendicitis may follow medical treatment when surgical interfence is thought necessary.

Dr. James P. Mann: I wish to say a few words in regard to two cases that have come under my notice. One was a physician, a friend of mine, and a man of considerable surgical experience, especially in abdominal work. He simply felt sick, but had no pain and no elevation of temperature. There was a little constipation. A diagnosis could not be made, until, finally, Dr. Wyeth, of New York, inserted his finger into the rectum and found a soft tumor on the right side. He then hazarded a diagnosis of appendicitis. The case was operated on and twelve ounces of pus removed, with recovery.

The second case was that of my son, two-and-a-half years old. He was taken sick in the night and appeared to have a little pain in the abdomen.

The temperature remained normal. The case was seen by Drs. Joseph Hearn, A. G. Hinckle, and Allis. For the first three days there was some obstruction of the bowels, but that passed away under simple treatment. The child seemed to be improving, but at the end of a week he suddenly went into collapse and died rapidly.

The post-mostem showed that there had been appendicitis with rupture and general peritonitis, and all this without any symptoms of appendicitis that could be appreciated.

Dr. G. Betton Massey: I have seen two cases of appendicitis that have led me to certain conclusions in the matter. The first one was a gentleman of prominence in the city, who had been nursed through seven attacks of appendicitis. This man was almost black from the prolonged use of nitrate of silver. Some months after I saw him he died in a recurrent attack.

The second case occurred recently in a young woman. The attack was diagnosed by myself and others as a second attack of appendicitis. I advised the patient to put herself in the hands of a surgeon for operation after recovery. This she did not do. Three months later she had another attack and died. Of course, this is a small number of cases to form a judgment upon, but it leads me to the conclusion that surgery is the best treatment, at least after the second attack—not during the attack but in the interval.

The President, Dr. De Forest Willard: Dr. Welch is in error in intimating that the surgeon, "of course, urges operation." A few years since this subject was discussed independently by two societies, The Association of American Physicians and the American Surgical Association. The consensus of opinion in the surgical society was rather against the operation; that it was an exceedingly difficult and dangerous one, and that it often was impossible to find the appendix; while the physicians strongly advised operation, and the speakers considered it to be perfectly simple, and held that no one would have any difficulty performing it. From my own experience, and I have seen a large number of these cases in the past few years, I am sure that surgeons refuse operation in a far larger number of cases than they operate upon. The surgeon is often obliged to restrain the physician in his desire for operation.

Dr. Price: In my estimation, there is only one treatment for suppurative appendicitis. I do not mean by appendicitis simply irritation of the appendix, but I mean inflammation of the appendix going on to ulceration and rupture. One physician asserted, in the discussion referred to by Dr. Welch, that if all these cases were operated upon there would be 20 per cent. more deaths than at present. The operations of surgeons in this city will positively refute that statement. I can give a hundred cases, in the hands of a dozen men, with not more than ten or twelve deaths. An appendix operation has no business to kill, and the man who cannot find the appendix either does not know where the appendix is, or he has another condition, in which he has no business to hunt for the appendix. If there is an abscess at the head of the colon, with the peritoneum shut off, it should be opened, washed out, and packed, and the patient will get well. No effort should be made in these cases to find the appendix.

With regard to the symptoms of appendicitis, I think that they are plain. If in the first twenty-four or forty-eight hours you find a tumor, that is not appendicitis. An abscess of such size does not form in so short a time. There may be high temperature; that has nothing to do with appendicitis, necessarily. There is an impacted colon and something irritating the colon. The administration of salts, persisted in until free evacuation of the bowel is produced, often cures the patient. If called to a patient with symptoms of appendicitis and you administer a purgative, and, coming back after free purgation, you find the mass and swelling and the patient no better, you have a case of appendicitis every time; you have an abscess forming at the head of the colon. It is your business to cut down and drain that, and if you open the peritoneal cavity it does not matter. If you wash out the peritoneal cavity and put in a gauze drain the patient will recover. When you find a man with a pulse of 170, where a grain of opium, or two or three grains, an hour have been given, with all the symptoms smothered, with a mass in the right

iliac fossa, and a temperature of 97°, respirations reduced to ten or twelve per minute, let him alone. Such a patient is beyond all possible chance of recovery.

We must recognize that all the troubles in the right iliac fossa are not appendicitis. Unless we have positive proof that there is trouble, we should not interfere.

In regard to Dr. Welch's cases. Patients do recover with abscess at the head of the colon; but is that treatment? Because now and then a man falls off a house and is not killed, it does not follow that that is a good way to get down. We have no business to call that treatment. It is our duty to do that which we find best for the patient, and not run the risk of having the abscess break into the colon or other viscera, and matting together of the bowels and crippling the patient for life. A short time ago I saw, in Albany, one of the cases which Alonzo Clark reported as appendicitis cured by opium. The man said to me that he had carried that appendicitis with him ever since. It ruptured into the bladder, and he passed feces for six months. Such cases as this are a proof that we should relieve these cases, and do it early, in order to avoid those fearful accidents which Nature in her attempt to save life, brings about.

I doubt whether Dr. Hoffmann's case was one of genuine appendicitis. There was trouble there at the head of the colon, with inflammation and tumor.

Dr. Musser had one of the most typical cases of appendicitis without rupture that I ever saw. The patient had had three or four attacks every year for several years. Dr. Musser diagnosed appendicitis. In all the attacks, except the last, the patient was relieved by free purgation. Dr. Joseph Price was then asked to operate. The history was clear, the appendix was large and distended with pus. The abdomen was opened and the tubes and ovaries found healthy. The appendix was not adherent and looked well. It was caught with hæmostatic forceps and tied off. On squeezing the removed appendix the nastiest pus could be squeezed out of it.

In the seventeen cases on which I have operated, I did not remove the appendix but twice. The trouble is, that we do too much surgery. A surgical operation for pus at the head of the colon, from any cause, if done in time, should not have 1 per cent. mortality. We have come to the point where there is but one obstructor in appendicitis cases, and that is the general practitioner consultant.

DR. GEORGE I MCKELWAY exhibited a

PORTABLE AND CONVENIENT FRAME FOR TRENDELENBURG'S POSITION.

Flatulent Dyspepsia.

℞ Bicarbonate of soda..... gr. lxxv
Prepared chalk..... 3i
Powdered nux vomica..... gr. xv
Powd. red cinchona bark..... 3i

Make 20 cachets.
Sig.—One cachet before each meal.

—*Union Medicale.*

Liniment for Neuralgia.

℞ Chloroform..... 6 drachms
Sulphuric Ether..... 1 ounce
Spirits Camphor..... 3 ounces
Tinct. Opium..... 1½ drachms

M. Sig.—Soak a small piece of flannel with the liniment, and apply over the painful part.

Cramps of the Legs in Pregnant Women.—Administer at bedtime five milligrammes of sulphate of copper. This can be administered every night without inconvenience. — *La Gazette Medicale.*

For the Night-sweats of Pulmonary Tuberculosis Dr. Ewart (*La Semaine Med in Med. News,*) suggests:

℞ Quininae sulphat.,
Zinci sulphat.....āā gr. ij
Ext. hyoscyami..... gr. j
Ext. nucis vomicae..... gr. ⅔

M.—Ft. pil. j. Sig.—Take at bedtime.

For Paralysis in Lead Poisoning.

℞ Potass. iodid.,..... 3ij
Ext. ergot fl.,..... 3j
Ext. nucis vom. fl.,..... 3j
Tr. cardamon co.,..... 3j
Syrup, q. s.
Aquae, ad..... 3iv

M. Sig.—Tablespoonful night and morning.

Diarrhœa.

Squibb gives:

℞ Tinct. opii..... 3ii
Tinct. capsici..... 3ii
Spr. camphor..... 3ii
Chloroform..... m xv
Alcohol.....*ad* 3 x

Sig.—Dose 20 to 40 drops.

—*College and Clinical Record.*

Carbuncle.

The following, says Buxton Shillitoe, will sometimes abort a carbuncle or boil if applied early:

℞ Extract opii..... 3ss.
Glycerinæ, q. s. nt. fiat. magma.

M. Sig —Smear thickly over the swelling three or four times a day; then apply.

℞ Pulveris opii.....
Unguenti hydrargyri..... } aa 3ss.
Saphonis durae.....

M. Sig.—Apply spread on thick leather.

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SATURDAY, JULY 1ST, 1893.

EDITORIAL.

DOES THE AMERICAN MEDICAL ASSOCIATION NEED A MEDICAL JOURNAL?

Within the past few years this question has often arisen, and it now recurs with emphasis greater than ever, since, in the latest issue of the *Journal of the American Medical Association*, the retiring editor attempted to make a plausible explanation for a very bad case.

When we behold the present strength and wealth of the *Journal of the British Medical Association*, we naturally inquire why America cannot maintain a journal its equal or superior. But if we consider for a moment and investigate, the answer is apparent. There is no analogy between the medical affairs of Great Britain and those of the United States. They, as a nation, have state medicine and we have not. England has no medical weekly of importance sufficient to compete with the Association's journal save the *Lancet*, while in America, there are at least a dozen journals of commanding merit. Over the ocean, the government is monarchial and paternal; tenure of office, private and public, has a stability and permanence quite impossible in a democracy.

Great editors are not born or made to order every day. It was only a Wakely who could found a *Lancet*, and before the fortunes of the *Journal of the British Medical Association* were placed in the hands of Ernest Hart, it had a precarious existence, and was given into his charge a forlorn hope. Moreover—there is no use of disguising it—the average respectable and influential American medical weekly is not in sympathy with the full development of the "association journal" idea. Editors and publishers know well that to make it in value and influence proportionate to the mighty nation which it should represent, would in one year, sink out of sight nine-tenths of the journalistic yield of this country. Doctors want to edit journals, and to own them too. Self preservation is one of the strongest in-

stincts of human nature. Can such a journal be made powerful, prosperous and popular without disturbing the interests of vested rights?

It has been well known to those "behind the scenes" that the financial state of the *Journal* has of late been questionable; that in influence and importance it was ever becoming weaker and weaker, is evident to every one.

It may have been in questionable taste for Dr. R. Harvey Reed to have "let the cat out of the bag," yet as a member of the Business Committee he was bound to inform the rank and file of the actual state of affairs. That there was no justification for branding him "a liar, a crank and a fool," because he told the truth and sounded the warning note, is evident by the action of the trustees in retiring the one who employed this intemperate and harsh language.

IN MEMORIUM.—JAMES McCANN, M. D., LL. D.—1836–1893.

Was born fifty-seven years ago in Penn Township, Allegheny County, Pa. His father served under Anthony Wayne in the war for American Independence. In early boyhood he passed his summers working on his father's farm, and the winter months as a pupil of John G. Beatty, who taught him, in addition to the public school curriculum of that time, Latin and the higher mathematics. At about thirteen years of age his father died, when he began teaching school and became a leading member of a local debating society. Even at this early date he was a ready, fluent and earnest talker. Tiring of the monotony of country life, and like the majority of young men of his age, not knowing exactly what to do with himself, he decided upon a mercantile career, and at the age of eighteen came to Pittsburgh, where, after graduating at Duff's College, he spent several years as bookkeeper in a business house. This sedentary life became irksome to him, his health was not good, and acting upon the advice of his physician, who regarded him as a young man of promising talents, he finally decided to study medicine. With this object in view, he, in 1858, entered the office of Drs. Thomas and John Dickson, Sr.

He graduated from the Medical Department of the University of Pennsylvania in 1863, and immediately entered the medical service of the army as assistant-surgeon of the Fifth Pennsylvania Volunteers. He continued in this service until the close of the war, when he returned to Pittsburgh and began the practice of medicine with Dr. W. C. Reiter. Two years later he received the appointment of surgeon to the Marine Hospital, and the connection with Dr. Reiter was soon afterward dissolved.

He was next appointed one of the surgeons of the Western Pennsylvania Hospital, which position he held until a few months ago, when he resigned because of ill health, and accepted the appointment of consulting surgeon. For twenty years he has been one of the surgeons of the Pennsylvania, the Allegheny Valley, and other railroads entering this city.

He was an active and influential member of the Pittsburgh Free Dispensary from its inception, of the Board of Health for many years, of the Allegheny County Medical Society, of the State Medical Society, of the American Medical Association, of the American Surgical Association and of the American Association of Obstetricians and Gynecologists, but owing to ill health he was never able to attend a session of the latter.

In spite of the busy life he led, his ardent love and natural aptitude for teaching led him—in connection with his confreres of the "Mott Medical Club"—to undertake the arduous task of organizing the first medical college in Western Pennsylvania. Into this work he threw all his enthusiasm and devoted to it all his energy and influence. Caring but little for pecuniary reward it was with him a labor of love. In September, 1886, after years of weary and distasteful work, the culminating point of his ambition was attained by his election to the chair of Professor of the

Principles and Practice of Surgery. This position, notwithstanding his failing health, and in defiance of bodily suffering, he filled until a few months prior to his death. At last, his physical endurance being exhausted, his grateful and sorrowing colleagues unanimously nominated him for appointment as "Emeritus Professor," a last tribute to his eminent worth and ability, but before this action could be confirmed by the board of trustees of the University, death had claimed him as his own.

He died a martyr to his profession—a sacrifice upon the altar of charity. His love for it and devotion to it was the direct cause of his death. He performed an enormous amount of work, and it was in the performance of a surgical operation, a work of charity in the Western Pennsylvania Hospital, that he received the fatal shaft from the quiver of the fell destroyer. Had he, like many others, turned aside from charity work and devoted himself strictly to his lucrative clientele, he would be living to-day.

He never ceased to be a student. He was too broad-minded to make a successful specialist. His mental attainments were too great, his studies and reading too comprehensive, his ambition too high for any single department of his profession to permit free scope to his talents. His mind was alert to grasp and tenacious to retain knowledge, which enabled him to easily keep pace with progress and improvement, however rapid, in every department of medical science.

He stood in the front rank of the leaders of the profession. His *savoir faire*, his strong personal individuality, his impulsive and generous nature won him a host of friends in and out of the profession.

His reputation and practice were not limited to his own city, county or State, but were national. His life was one of unceasing toil. There are but few surgical operations that he had not performed. His profound knowledge, rather than his personal magnetism, made him popular with all the members of the profession with whom he came in contact, making him eagerly sought as a consultant, and he never betrayed this trust.

He followed, as strictly as the present state of society will, perhaps, admit, the axiom, "a physician's first duty is to his patient, his second only to himself."

He was in the active practice of his profession from 1863 to 1893—a period of but thirty years, yet in those thirty years he accomplished, perhaps, a task as great, and fulfilled a destiny as rounded and complete as the average practitioner of fifty years standing. A man's life is measured by his works. Judged from this standpoint, although he was but fifty-seven years of age, his death was not premature.

He had faults, but no vices, and his virtues were too many to dwell upon at greater length. By his death his wife loses a loving husband, his children an affectionate father, his colleagues a genial companion and true friend, and his profession a devoted follower. *Requiescat in pace.*

W. Snively,
J. B. Murdoch,
C. B. King,
Committee of Faculty,
Western Penn'a Medical College.

Pittsburgh, June 19, 1893.

Morphine and Gastric Secretion.

Hitzig has noted that morphine administered hypodermicly to a dog is shortly afterward excreted by the stomach, and that, following upon this, there is a marked reduction in the amount of gastric juice secreted, and more especially of its acid constitutant. The cessation of the action of the drug is followed by the secretion of excess of hydrochloric acid. With regard to the effect upon human gastric juice, the case is described of a patient who consumed daily two grammes each of morphine and cocaine, the latter having been resorted to in an endeavor to remove the craving for the morphine. He was treated by gradual reduction of the doses of the alkaloids, but it was not until the morphine was entirely discontinued that the presence of free hydrochloric acid was indicated (*Neur. Centr.*, *B. M. J. Epit.*, *1671,4*).

"What did de doctah say ailed yer mostly, Bill?" "He 'lowed dat I had a conflagration of diseases. Fust, de salvation glan's don't insist my indigestion; dat makes a torpedo liver, cose I'm liable to go off any minute."

CORRESPONDENCE.

PRESIDENT ROBERTS AND HOMŒOPATHY.

In the Reporter, of May 27th, appears the annual address of Dr. John B. Roberts, President of Philadelphia Co. Medical Society, entitled "Points of Similarity between us and Homœopathic Physicians." President Roberts deserves thanks, and thanks with a big T, for the able manner in which he has handled the subject regardless of the title; it is a masterly exhibition, or even exposé, of the position of the Sectarian Brethren as they are today. For the charming scholarly style in which the subject "is done," the Doctor "takes the cake," and deserves the whole bakery. Dr. Roberts might have gone still farther in his investigations and told "us" of "the Points of Similarity," at the *starting point*, between "us and Homœopathic Physicians."

For instance, regardless of his choice of school, the average student starts in with very little general information about "men and things," and none whatever, of the subject of his choice. He steps into the field, not to investigate but to follow a beaten path, and is ready to believe all that is taught him. If he chooses a Homœopathic School, he is ready to believe that "Regulars," styled "Allopathists," are little short of antiquated, dough-headed murderers, who treat patients according to the rhyme:

> "I purges, I pukes, and I sweats them,
> Then if they die, I lets them."

He is ready to believe that in accordance with "Similia Similibus Curantur" theory the administration of gold will cause a man to be avaricious, and the administration of sulphur cause a man to despair of his eternal salvation, and even long for the "Lake of Fire and Brimstone," if given in sufficient doses; while the proper attenuation of the same will chase out the despair and raise a camp meeting feeling in his bosom. If he sups with the "Eclectics," he has no difficulty in swallowing the "Pap" that both Regulars (here also styled Allopathists) and Homœopaths, are following a metallic route to perdition, and that Eclectics alone "select" their remedies from all proper sources. If he goes to the "Regulars," he is fully capable of taking in, without an effort, the doctrines that Homœopaths and Eclectics are "Ignorant Heretics," to be classed with "Quacks and Tramps." Just in accordance with the class of Professors he falls in with, will he be filled up, more or less, with the gall and bitterness of adverse criticism. So he goes out into the world, armed, he thinks, against both disease and professional foe. The world into which he goes, knowing just as little of the science of medicine as he did a few months ago, hears his ranting and raving, breaks into factions, and believes or disbelieves, some from ignorance, and some from pure cussedness.

Another "point of similarity" the Doctor might have mentioned is the ignorance of the average practitioner of either school of what is taught in the adverse school. Now, as the value of one's opinion, on a given subject, is just in accordance with the perfectness of one's knowledge of the subject, it follows that most of the time neither party knows what they are talking about. Hence, it becomes a sort of "You're a liar" and "You're another" kind of an argument, while the outsider looks on and grins. In view of all this, Dr. Robert's paper is most timely; it shows that the Homœopathic people are coming around to rational medicine because it is rational. He shows that a few, only a few, play Hahnemann, with Hahnemann as the principal character. That many, very many, are content with only a recognition of him as "a has been." The picture is as bad as the "play of Hamlet, with Hamlet left out," and content that the ghost of his Father is left in.

The Doctor's "investigation" is intended by him to illustrate his position, that membership in a regular medical society ought to be open to this class of physicians. He accords, and justly so, to them "courtesy, refinement and large hearted charity." In a communication of mine, published in The Reporter of February 23rd, 1889, I used these words: "We must recognize that there are just

as true gentlemen, loyal citizens and Christians practicing in the other schools as in our own." We can all, at least, respect the Sectarian, who is honestly practicing his belief, just as one can respect a fellow regular whose idea of treatment may differ radically from one's own. Unless, indeed, it is that class, few in number I am glad to say, who still calling themselves "regular," assume the,—"Treat you either way" dodge. A sort of—"you pays your money and takes your choice"—game of therapeutics. No one respects them, though sometimes they are of more than average ability. One of the brainiest practitioners, of my knowledge, in Western Pennsylvania, does all that, and more too, for he poses thusly: "Catharsis, Allopathic, Emesis, Homœopathic, see? so I use a double system, one acting well, upwards, the other acting well, downwards, result, perfection, see?" *Of course,* the patient sees, *they always do,* when that sort of thing is done impressively, and the double system doctor pockets good fees. I don't think Dr. Roberts would care about him, though, in a "regular" way.

While I do not intend this as an illustration of the class of physicians President Roberts presents in his paper, yet I do say that this paper causes one to reflect, thoughtfully reflect, on his *facts* and suggestion in this way, viz: "*Is it honest* to cure diseases by non-Homœopathic methods and contrary to Homœopathic law, and yet *claim Homœopathic credit for the result? Is it honest* to admit that "had not our school drifted away from the practice of forty years ago, it would have been dead and buried long since," and yet give that *same law of cure* of forty years ago, the credit of what that school does by *rational methods* and *regular school therapeutics* to-day? *Is it honest* for a school that uses as "Text Books—the U. S. P.—Woods Therapeutics—Pepper's System of Medicine," as well as those by "Gross, Agnew, Playfair, etc.," to be posing as teaching according to Homœopathic law? "Pepper" recommended as a "Text Book" by "Hahneman College" is enough to cause the shade of the Apostle of Homœopathy to shed bitter tears, even though the "Pepper" wasn't *re(a)d.* That somewhat salty sentence rolled out from my pen before I really caught on to it myself, and it wasn't intended as a *dry* joke either. *Is it honest* for a school to use the brains, scholarship and text books of rational medicine, and at the same time refuse to sit on an Examining Board with that scholarship and examine on those text books? Use the books for the student, and yet insist on *examination* according to *Homœopathic Law. Is it honest?* If it is, then my very good friend Dr. Roberts is right, and we should open the doors of our societies and bid them enter. If it is not honest to forsake the substance and claim credit for the shadow; if it is not honest to forsake Homœopathic Law, while claiming credit for "Similia Similibus Curantur" (as every one who still clings to the name does) then the door should be shut. There is no doubt but that a very large portion of the regular profession are willing to sit down and exchange, gladly, specimens with Homœopathic physicians where sectarianism is by them set aside. Is it not asking too much to throw open the doors of rational medical recognition to gentlemen who while "*practicing it, deny the faith.*" Dr. Roberts is such a genial, good hearted man, to say nothing of his sterling professional qualities, that the Homœopathist who would not *want to consult* with him would be "hard-hearted and white-livered" indeed, and the doctor is just enough and broad enough to be willing to help even a "Thompsonian" to improve his "number six." However, would it not be as well to wait until the gentlemen of "Similar Points" get to the broad "Similar Point" that Dr. Roberts has reached, and *want to come in.* I am sure that they can, just as soon as they reach a "Similar Point" of being not sectarian, but Fellow Craftsmen for the *common good.*

In the meantime I think the position of the regular profession towards Dr. Roberts' paper will be this "That we thank him for the publication, for its information and general blessedness, regardless of his suggestion."

S. S. Towler, M.D.,
Marienville, Pa.

Purulent Cystitis.

℞ Iodoformi pulv.,
Mucilag. acaciæ,
Glycerini puri,
Aquæ destill.—M.

Sig.—After washing out the bladder about five drachms of this combination is injected and allowed to remain for fifteen minutes.

THE LIBRARY TABLE.

BOOK REVIEWS.

A Standard Dictionary of English Language. Funk & Wagnalls Co., 18 and 20 Astor Place, New York.

We have examined the sample pages of the "Standard Dictionary" and are convinced that the work will prove of invaluable service, and will take a place in the highest ranks of works of the kind. It contains the best points of most other similar works with some distinguishing features of its own of greatest value. Among them, we note first that the etymology of words is placed *after* the definition, that in the definition of words the most common meaning is given first, which is the order of practical common sense. That in the pronunciation of words, the scientific alphabet recommended by the American Philological Association is used. That the quotations used to verify or illustrate the meaning of words are located by author, book, page and edition. That disputed pronunciations and the spellings are so given as to furnish a consensus of the best judgment of the English speaking world on all disputed words. That a serious and successful attempt has been made to reduce to a system the compounding words. That obsolete, foreign, dialetic slang words are given places only to be sought for in a general English dictionary, while the vocabulary is extraordinarily rich and full, surpassing any other dictionary.

A marked feature is the pictorial illustrations, nearly 5000 in number, including several full page groups in colors made in the highest style of the art by the Messrs. Prang.

We note the editorial staff comprises a number of the most eminent specialists in their various departments, and their work seems to be extraordinarily well done. For instance, in all matter pertaining to our medical profession, the dictionary is full, accurate, and up to date. The features of this dictionary will commend it to students and scholars. The work will prove of superior convenience and includes an extraordinary amount of material not found in the ordinary dictionary, and will quickly become the "standard" in reality as well as in name.

The Surgery and Surgical Anatomy of the Ear. By Albert H. Tuttle, M. D. *Physicians Leisure Library*, Geo. S. Davis, Detroit, Mich., 1893.

Works like this one should be of immense value to the busy surgeon, as it furnishes in a reliable and compact manner, the topographical landmarks of the temporal bone after giving us five chapters, four of them clearly describing the surgical treatment of the ear, beginning with the external canal and concluding with the brain lesions so often resulting from diseases of the middle ear. The first chapter is devoted to the anatomy of the ear. In describing the diseases of the external canal, the author does not mention atresia of the canal, a condition by no means rare and calling for surgical intervention. He very wisely considers suppurative inflammations of the brain and its meninges, except those of tuberculous or traumatic origin, to be associated with middle ear disease. In the chapter on the mastoid and its operations, the author considers Schwertze's indications, eight in number, as the most valuable in determining the advisability of an operation; early operation is advised in all cases as tending to lessen the inflammatory process and rarely terminating fatally if early performed. Dr. Tuttle also furnishes a ready means of refering to the literature of many authors on the anatomy and surgical treatment of the ear.

The scholarly presentation of this little work should make it welcomed both by the general surgeon and aurist; it is, however, for its sections of the temporal bone and topographical description that Dr. Tuttle has furnished us so reliable a guide. It may be said of this little work, that it embodies in a condensed form a large part of the most recent contributions on the surgery of the ear.

The Diseases of the Nervous System. By Dr. Ludwig Hirt, Professor at the University of Breslau. Translated with permission of the author by August Hoch, M.D.; assisted by Frank R. Smith, A M. (cantab), M.D., with an introduction by William Osler, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, etc. With 178 illustrations. Pp. 683., New York: D. Appleton & Co., 1893.

In his "Introductory Note" to this English translation of Professor Hirt's valuable work, Dr. Osler informs us that the idea of having it translated was due to Dr. Weir Mitchell calling his attention to its exceptionally good arrangement and thorough description of the nervous system, and all who read this translation must duly appreciate the appearance of another work which manifests so large an amount of research and personal observation in this class of diseases.

The book has three principal divisions: (1) Diseases of the Brain and its Meninges, including those of the Cranial Nerves. (2) Diseases of the Spinal Cord, and (3) Diseases of the General System.

After treating of diseases of the meninges of the brain, no less than 128 pages are devoted to a lucid and comprehensive description of the diseases of the cranial nerves. The author does not discuss one here, one there, and the peripheral nerves of the spinal cord partly in one place, partly in another, according as he is dealing with their motor or their sensory disturbances, but he speaks of the former and of the latter in the order that their anatomical position would indicate.

A somewhat novel arrangement of the subjects dealt with has been adopted. For instance, tabes dorsalis and dementia paralytica are placed among the diseases of

the general nervous system, instead of in the sections on diseases of the cord and diseases of the brain respectively. As Dr. Osler justly remarks "the fact which makes the work of value to the teacher, the student, and the practitioner is the graphic description of the anatomy and symptomatology of the different diseases. Where all is so good it is invidious to select, but the chapter on tabes is an illustration of our author's lucid and, at the same time, thorough treatment of his subject." Whilst believing that it is possible to cure tabes of lentic origin, he concludes the question of prognosis by saying "On the whole, one can say that out of 250 tabetics one has a chance of regaining his previous health."

As to therapeutics, he considers that although syphilis is at the bottom of many instances of tabes, an anti-syphilitic treatment is only admissable in a very small number of cases. Of internal remedies, silver nitrate, ergotin and physostigmine have the preference, in addition to which electrical treatment may yield excellent results in recent cases. He speaks most favorably of the excellent general faradization advised by Beard and Rockwell, and the faradic brush applied to the back as recommended by Rumpf.

In a large number of cases the cold water treatment has been found extremely beneficial, but he emphatically warns the practitioner against the use of warm or hot, as well as steam and sweat baths. The results of massage, he says, are not satisfactory and in relating his experience of the "Suspension" treatment of 115 patients, he states that in no single instance was he able to note any marked or lasting improvement, and the impression which he himself has gathered is, that "suspension" will be in vogue for a time, only to fall again into complete oblivion. The same candid spirit pervades the expression of opinion as to the use of remedies in other diseases of the nervous system. The treatment of myxœdema is omitted, this apparent omission is probably due to the fact that the original work is now four years old.

The excellent illustrations, which are most of them new, faithfully elucidate the text and greatly add to the attractiveness of the work. We regret that our space will not permit us to dwell further upon its contents, but we confidently recommend it to the practitioner as a faithful guide in the study and treatment of nervous diseases.

Materia Medica and Therapeutics. In two vols. By Jno. V. Shoemaker. The F. A. Davis Co., Publishers.

Of books on therapeutics there seems to be no end. A book that meets a want or fills a place in medical literature should either say something that others do not say, or should say she oft repeated in much better styyje than has been done by anyone else. This work does neither, therefore, it does not fill a long felt want. If we did not have two or three very excellent works on this subject, Shoemaker's book might be hailed as a valuable tontribution. But the market is glutted with two very able English works and two most excellent American ones. It is true this work is not without some excellent points; yet it blemishes far outnumber its good qualities-

The great value and importance of the imponderable agents such as heat, electricity, hypnotism, massage, rest and the like are very ably, fully and clearly set forth in the first volume, and if the auther had stopped with the first volume his work would have been both unique and useful. The second volume is taken up with drugs and their application.

Due attention is given to the new remedise such as the coal tar preparations. Animal extracts are not even ignored. For this Dr. Shoemaker deserves great credit, but in the discription and application of the more familiar remedies there is too much accepted from others and too little of the author's own experience to give an air of authority to what is said. When antipyrine is recommended for typhoid fever, one is prone to look upon the work as an unsafe guide to the inexperienced.

For the beginner, the work is not practical enough, and for the experienced and scientific physician there are other books that are much better for his library or office table. It might pay any one to purchase the first volume, but the second one would last a long time in the hands of even the most omnivorous reader.

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS for June. Dr. Paul F. Munde contributes an article on

Abdomino-pelvic Fistula after Celiotomy and Laparotomy; its Prevention and Treatment.

The author comes to the following conclusions:

1. The formation and persistence of abdomino-pelvic sinuses after celiotomy and laparotomy should be prevented by all the means at our disposal.

2. Such sinuses cannot always be prevented, no matter how careful we are.

3. A certain number of early, moderate cases may heal under appropriate treatment, and even a few old cases may recover after operation.

4. Celiotomy, or the opening of the abdominal cavity, is usually not necessary or beneficial in treating these sinuses, unless it

can be distinctly shown or suspected with good reason that the focus of suppuration can be reached only in that way.

5. Through drainage into the vagina, whenever practicable, forms the best method of curing deep sinuses.

6. In some cases, where the other methods, medical and surgical, have failed, and where the general health is fair and the sinus gives but little inconvenience, it is justifiable not to subject the patient to the risks and uncertainty of an abdominal section (celiotomy), but to advise her to "let well enough alone" and keep her sinus so long as she can live comfortable with it.

Dr. Andrew F. Currier contributes a paper on "Septicemia and its Treatment with Oxygen." The author reports two cases, in one of which it was believed that the oxygen repeatedly warded off impending death. In the second case, while it is believed the oxygen delayed the fatal issue, it was powerless to overcome the advancing sepsis. The only ill effect which the author has ever seen in its use, consists in pain referred to the region of the stomach, probably due to swallowing the oxygen, which may have been administered under too great pressure.

Dr. Charles J. Cullingworth discusses the subject of

Retention of Menstrual Fluid, in Cases of Bicorned Uterus, from Uni-lateral Atresia of Uterus or Vagina.

The author reports a case where the tumor was thought to be a suppurating cyst outside the uterus and a section undertaken for its removal. At the operation, the true condition was discovered and the retained fluid evacuated *per vaginam*. The author states that it would have been impossible to have arrived at a correct diagnosis without abdominal exploration. The two great dangers of the vaginal evacuation of the retained fluid are septicemia and the rupture of a distended Fallopian tube. Both dangers can be overcome, the former by strict antisepsis, and the latter by slow evacuation of the accumulated blood, so as to minimize the risk of exciting reflex muscular contractions. In the event of a rupture of a tube, the abdomen should be promptly opened, the peritoneal cavity cleansed, and the ruptured tube removed. The report includes a number of similar cases reported by other observers, and is illustrated by a cut representing the malformation described in the paper.

Dr. H. J. Boldt discusses

The Operative Treatment for Myo-fibromata of the Uterus.

He states that he has been unable by means of electricity, to diminish the size of the tumor in any case, though in a number of instances the symptoms caused by the growth have been relieved—that is the pain and hemorrhage; in others again, the treatment was not only negative, but the patients gradually became worse. He would however, sanction operation in cases of ordinary interstital growths, only after the current had been tried. He warns against the danger of producing suppuration in the tumor by means of the current. If a myomatous uterus in small enough to be removed per vaginam *in toto*, vaginal hysterectomy then is the operation of choice, provided other measures fail of relief. If an abdominal operation is necessary, the neoplasm should be removed by enucleation, when possible, the bed being sewn up with buried catgut sutures. Constricting the cervix with an elastic suture during enucleation he regards as bad. When the body of the uterus must be removed along with the tumor, no method of treating the stump has given as good results as the extra-peritoneal. Personally however, he favors the intra-peritoneal method, and regards Martin's method as ideal. He uses nothing but catgut for the suturing and tying, except in closing the abdominal incision. In the intra-peritoneal treatment, secondary hemorrhage plays an important role in causing death. This need not be feared if the ligatures are properly placed in complete hysterectomy. The main cause of death in complete hysterectomy is shock or extreme anemia, and for that reason he has not entirely given up the extra-peritoneal treatment. The paper gives the report of twenty-one cases operated upon.

Dr. R. Stansbury Sutton discusses the

Elastic Ligature in Supra-vaginal Hysterectomy.

The author prefers the extra-peritoneal treatment of the stump because statistics show that this is the better method. The author regards rubber as the ideal substance for the composition of the constrictor for the compression of such tissue as the cervix. He has abandoned the wire nœud on account of the danger from hemorrhage unless the wire is constantly watched and tightened. The rubber constrictor is turned twice about the cervix, underneath the transfixing pin, secured by a double knot, behind which a heavy silk ligature has been securely tied, and closely in front of which a pair of lock-handled forceps grasps the free ends of the ligature. This method is safe against hemorrhage under all circumstances. There is no depending upon an assistant, nurse or self to tighten the ligature; it follows up the shrinking pedicle painlessly and effectually. The primary dressing may remain on the pedicle from nine to thirteen days without any disturbance whatever. During the three years in which he has used this ligature, he has not found a single objection to it, and his hysterectomies have given him no more trouble than his ovariotomies. The paper is illustrated with cuts showing the method of applying the ligature.

Dr. Howard A. Kelly describes what he considers to be the "Best Needle Holder," giving a cut of the instrument described.

Dr. Henry C. Coe discusses the "Internal Migration of the Ovum," reporting a case of repeated ectopic gestation possibly supporting the theory. The paper is illustrated with a cut showing the conditions described in the paper.

This issue also contains the address of Professor Theophilus Parvin to the American Gynecological Association, in which the author urges the necessity of the chairs of

gynecology and obstetrics in our colleges being filled by one man and not divided as is the usual custom. This number concludes with a memorial notice of the late Dr. Charles Carroll Lee.

LANPHEAR'S KANSAS CITY MEDICAL INDEX for June. Dr. Frederick P. Henry contributes a paper on the

Treatment of Pulmonary Tuberculosis.

Cod liver oil is given the first rank in the remedies advised by the author. Cod liver oil cannot be retained, or if retained is of very little value, in the cases with febrile symptoms. In such cases, he advises the use of morrhuol. Another drug that is useful is arsenic. Alcohol he considers of doubtful value, though it is possible that, in moderation, it may favor the cicatrization of tubercular deposits in cavities. He is of the opinion that the hypophosphites of soda and lime possess no advantage over the phosphates, as they probably undergo oxidation in the stomach. Glycerin may be prescribed in place of cod liver oil to those with whom the oil does not agree. Iron is advised for the anæmia that so constantly accompanies phthisis, but the author thinks that it is of no use when there is febrile movement. In afebrile cases, it may assist greatly in maintaining the general state of nutrition. For the cough, he considers hydrocyanic acid to be one of the best drugs and, when this alone will not suffice, a little morphia may be added. Iodine, carbolic acid and creasote, by inhalation, are of service in allaying the cough, as is also the well known solution of Dobell. For hæmoptysis, the drugs on which most reliance is to be placed are ergot, sulphuric and gallic acids. The old-fashioned remedy of salt he has also found useful. Dry cupping of the affected side and hot foot-baths are useful as derivatives, and, if the bowels are constipated, a purgative should be administered. Night-sweats are controlled by means of atropia. He has used picrotoxin, though of late he has used agarcin with much benefit and speaks highly of it. It should be given in doses of one-tenth of a grain, combined with a grain or two of Dover's powder.

Dr. M. B. Ward, in an article on "Pyometra," reports a case in which operation was refused by the patient till in extremis. At the section the uterus was found to be completely necrosed, with the walls as thin as paper. Total extirpation of the uterus was performed but the patient died. Hysterectomy he regards as the only treatment for the condition.

Dr. Edward A. Lee, in an article entitled "Preventive Treatment after exposure to Gonorrhœa; and Treatment of the Disease," advocates the irrigation of the urethra for two or three minutes at a time, and repeated once or twice, with a bichloride solution of 1–10,000, or 1–20,000. At the same time, the glans-penis, prepuce and body of the organ should be bathed in the same solution, or one of 1–6,000 or 1–8,000. This, he states, will prevent many cases from developing, provided they be seen within a few hours after exposure. After the disease has been in progress for two or three days, he prescribes salines and copaiba, internally, with injections of bichloride 1–10,000 or 1–20,000 repeated three times a day and followed immediately by the injection of a solution of sulphate of zinc with bismuth.

Dr. J. F. Binnie contributes a paper on "Gradual Auto-inoculation as a Factor in the Production of Immunity from the Effects of Septic Infection."

Dr. Emory Lanphear reports a "Case of Sacro-iliac Disease with Immense Distention of the Abdomen with Pus—Laparotomy—Cure." The remaining articles in this issue: "A Method of Operating About the Face by which but Little Blood Enters the Mouth," by Dr. W. W. Keen; "Amputation at the Hip-Joint—Tumor Near the Sub-clavian Vessels—Operation on the Fifth Nerve," by Dr. John B. Deaver; "Metatarsalgia (Morton's Painful Affection of the Foot)," by Dr. S. K. Morton; were read at the meeting of the Philadelphia Academy of Surgery on March 6th, 1893, and appeared in the MEDICAL AND SURGICAL REPORTER for May 13th, 1893.

NEWS AND MISCELLANY.

American Electro-Therapeutic Association.

The third annual meeting of the American Electro-Therapeutic Association will be held in Chicago, September 12, 13 and 14, at Appollo Hall, Central Music Hall Block.

Members of the medical profession interested in Electro-Therapeutics are cordially invited to attend.

AUSTIN H. GOELET, M.D., Pres.
MARGARET A. CLEAVES, M.D., Secy.

ARMY AND NAVY.

U. S. ARMY FROM JUNE 17, 1893, TO JUNE 24, 1893.

An army retiring board having found Major John O. Skinner, Surgeon, incapacitated for active service, the extension of leave of absence on Surgeon's certificate of disability, is further extended until further orders.

Leave of absence for two months, to take effect on or about July 15, 1893, is granted 1st Lieutenant Benjamin Brooke, Assistant Surgeon, U. S. Army.

Leave of absence for one month and twelve days, from August 1, 1893, is granted Captain Charles E. Woodruff, Assistant Surgeon.

1st Lieutenant Harry M. Hallock, Assistant Surgeon will, on July 6, 1893, proceed to Griffin, Georgia, and report to Captain George G. Greenough, 4th Artillery, for duty in connection with the encampment of State troops at that place.

1st Lieutenant, J. D. Glennan, Assistant Surgeon, now at Fort McIntosh, Texas, will report to the commanding officer 3rd Cavalry, to accompany Troop I of the regiment to Fort Sill, O. T.